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Section II – County Soil and Site Information Reports

**County specific computer generated reports.*

ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Chase County, Nebraska: Published

Map symbol	Soil name	Acres	Percent
Ac	Alliance Silt Loam, 0 To 1 Percent Slopes	15,567	2.7
AED	Arents, Earthen Dam	40	*
Af	Altvan Loam, 0 To 1 Percent Slopes	2,184	0.4
AfB	Altvan Loam, 1 To 3 Percent Slopes	2,497	0.4
AfC	Altvan Loam, 3 To 6 Percent Slopes	593	0.1
AsB	Ascalon Fine Sandy Loam, 1 To 3 Percent Slopes	12,096	2.1
AsC	Ascalon Fine Sandy Loam, 3 To 6 Percent Slopes	4,549	0.8
BeB	Blanche Very Fine Sandy Loam, 0 To 3 Percent Slopes	2,240	0.4
Bg	Bridget Silt Loam, 0 To 1 Percent Slopes	587	0.1
BgB	Bridget Silt Loam, 1 To 3 Percent Slopes	1,802	0.3
BuC	Bushman Very Fine Sandy Loam, 1 To 4 Percent Slopes	1,448	0.3
Cb	Caruso Loam, 0 To 2 Percent Slopes	1,242	0.2
ChD	Colby Silt Loam, 6 To 9 Percent Slopes	2,308	0.4
ChF	Colby Silt Loam, 9 To 30 Percent Slopes	18,301	3.2
ChG	Colby Silt Loam, 30 To 60 Percent Slopes	28,860	5.0
CrB	Creighton Very Fine Sandy Loam, 1 To 3 Percent Slopes	2,289	0.4
CrC	Creighton Very Fine Sandy Loam, 3 To 6 Percent Slopes	2,831	0.5
CrD	Creighton Very Fine Sandy Loam, 6 To 11 Percent Slopes	1,691	0.3
DbB	Dailey Loamy Sand, 0 To 3 Percent Slopes	5,562	1.0
DuC	Duda-Tassel Loamy Sands, 3 To 6 Percent Slopes	3,066	0.5
Fu	Fluvaquents, Silty	386	*
Gb	Gannett Silt Loam, Overwash, 0 To 2 Percent Slopes	2,939	0.5
Gf	Gibbon Silt Loam, 0 To 2 Percent Slopes	1,882	0.3
Gh	Goshen Silt Loam, 0 To 1 Percent Slopes	12,784	2.2
HaB	Haxtun Loamy Fine Sand, 0 To 3 Percent Slopes	7,510	1.3
HdB	Haxtun Fine Sandy Loam, 0 To 3 Percent Slopes	7,742	1.3
INT	Aquolls	66	*
JaB	Jayem Loamy Fine Sand, 0 To 3 Percent Slopes	9,256	1.6
JaC	Jayem Loamy Fine Sand, 3 To 6 Percent Slopes	2,602	0.5
JcB	Jayem Fine Sandy Loam, 0 To 3 Percent Slopes	5,623	1.0
JcC	Jayem Fine Sandy Loam, 3 To 6 Percent Slopes	1,245	0.2
KeB	Keith Silt Loam, 1 To 3 Percent Slopes	1,756	0.3
KeC2	Keith Silt Loam, 3 To 6 Percent Slopes, Eroded	547	*
Ku	Kuma Silt Loam, 0 To 1 Percent Slopes	34,415	6.0
KuB	Kuma Silt Loam, 1 To 3 Percent Slopes	10,931	1.9
KuC	Kuma Silt Loam, 3 To 6 Percent Slopes	880	0.2
LaB	Laird Fine Sandy Loam, 0 To 3 Percent Slopes	1,813	0.3
LD	Sanitary Landfill	22	*
M-W	Miscellaneous Water, Sewage Lagoons	70	*
Ma	Mace Silt Loam, 0 To 1 Percent Slopes	7,567	1.3
MaB	Mace Silt Loam, 1 To 3 Percent Slopes	554	*
Mc	Mace-Alliance Silt Loams, 0 To 1 Percent Slopes	6,282	1.1
McB	Mace-Alliance Silt Loams, 1 To 3 Percent Slopes	5,489	1.0
Mm	Mccash Very Fine Sandy Loam, 0 To 1 Percent Slopes	1,449	0.3
Mo	Mccook Silt Loam, 0 To 1 Percent Slopes	2,899	0.5
Mp	Mccook Silt Loam, Occasionally Flooded, 0 To 2 Percent Slopes	861	0.1
MtB	Mccook Silt Loam, Channeled, 0 To 3 Percent Slopes	151	*
OaF	Otero-Canyon Loams, 6 To 20 Percent Slopes	12,851	2.2
OaG	Otero-Canyon Loams, 20 To 45 Percent Slopes	7,405	1.3
Rs	Rosebud Loam, 0 To 1 Percent Slopes	16,825	2.9
RsB	Rosebud Loam, 1 To 3 Percent Slopes	7,132	1.2
Rt	Rosebud-Canyon Loams, 0 To 1 Percent Slopes	6,841	1.2
RtB	Rosebud-Canyon Loams, 0 To 3 Percent Slopes	27,959	4.9
RtC	Rosebud-Canyon Loams, 3 To 6 Percent Slopes	9,301	1.6
RtD2	Rosebud-Canyon Loams, 6 To 11 Percent Slopes, Eroded	1,735	0.3
SaC	Sarben Loamy Very Fine Sand, 3 To 6 Percent Slopes	1,743	0.3
SaD	Sarben Loamy Very Fine Sand, 6 To 9 Percent Slopes	1,013	0.2
SbB	Satanta Very Fine Sandy Loam, 1 To 3 Percent Slopes	1,040	0.2
SbC	Satanta Very Fine Sandy Loam, 3 To 6 Percent Slopes	966	0.2
Sc	Scott Silt Loam, 0 To 1 Percent Slopes	1,527	0.3
TaB	Tassel-Duda Loamy Sands, 0 To 3 Percent Slopes	5,117	0.9
TaF	Tassel-Duda Loamy Sands, 3 To 30 Percent Slopes	4,704	0.8
UsC2	Ulysses Silt Loam, 3 To 6 Percent Slopes, Eroded	2,369	0.4
UsD2	Ulysses Silt Loam, 6 To 9 Percent Slopes, Eroded	1,597	0.3
VaF	Valent Sand, Rolling	96,727	16.8
VaG	Valent Sand, Rolling And Hilly	16,983	3.0
VcB	Valent Loamy Sand, 0 To 3 Percent Slopes	13,946	2.4
VcD	Valent Loamy Sand, 3 To 9 Percent Slopes	60,383	10.5
VeB	Vetal Fine Sandy Loam, 0 To 3 Percent Slopes	5,722	1.0
W	Water	1,364	0.2
Wa	Wann Fine Sandy Loam, 0 To 2 Percent Slopes	2,781	0.5
WoB	Woodly Loamy Fine Sand, 0 To 3 Percent Slopes	10,068	1.8
WpB	Woodly Fine Sandy Loam, 0 To 3 Percent Slopes	18,712	3.3
	Total	574,285	100.0

* Less than 0.1 percent.

NONTECHNICAL SOIL DESCRIPTIONS
Chase County, Nebraska

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units, shown in the NonTechnical Descriptions report. These descriptions are written in terminology that Non-technical users of soil survey information can understand.
Nontechnical soil descriptions are a powerful tool for creating reports. These high quality, easy to read reports can be generated by conservation planners and other NRCS employees for distribution to land users. Soil map unit descriptions and National Soil Information System records are the basis for these descriptions.

Ac Alliance Silt Loam, 0 To 1 Percent Slopes

Alliance soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of loess over sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

Af Altvan Loam, 0 To 1 Percent Slopes

Altvan soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of loess over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2s. It is in the nonirrigated land capability classification 2c.

AfB Altvan Loam, 1 To 3 Percent Slopes

Altvan soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of loess over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

AfC Altvan Loam, 3 To 6 Percent Slopes

Altvan soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is high. The parent material consists of loess over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

AsB Ascalon Fine Sandy Loam, 1 To 3 Percent Slopes

Ascalon soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of moderately coarse textured calcareous loess. This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

AsC Ascalon Fine Sandy Loam, 3 To 6 Percent Slopes

Ascalon soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of moderately coarse textured calcareous loess. This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

BeB Blanche Very Fine Sandy Loam, 0 To 3 Percent Slopes

Blanche soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping plain on tableland. The runoff class is very low. The parent material consists of loamy residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Chase County, Nebraska

Bg Bridget Silt Loam, 0 To 1 Percent Slopes

Bridget soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level stream terrace on valley. The runoff class is negligible. The parent material consists of loamy colluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

BgB Bridget Silt Loam, 1 To 3 Percent Slopes

Bridget soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping stream terrace on valley. The runoff class is low. The parent material consists of loamy colluvium. This soil is well drained. The slowest permeability is moderate. It has a very high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

BuC Bushman Very Fine Sandy Loam, 1 To 4 Percent Slopes

Bushman soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping plain on tableland. The runoff class is very low. The parent material consists of calcareous colluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon, This soil is in the Limy Upland - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 3e.

Cb Caruso Loam, 0 To 2 Percent Slopes

Caruso soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of calcareous loamy alluvium. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil contains a moderately saline horizon, This soil is in the Saline Subirrigated - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2w. It is in the nonirrigated land capability classification 2w.

ChD Colby Silt Loam, 6 To 9 Percent Slopes

Sulco soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping hillslope on upland. The runoff class is medium. The parent material consists of calcareous loess. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon, it has a horizon that is slightly sodic. This soil is in the Limy Upland - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

ChF Colby Silt Loam, 9 To 30 Percent Slopes

Sulco soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep hillslope on upland. The runoff class is high. The parent material consists of calcareous loess. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon, it has a horizon that is slightly sodic. This soil is in the Limy Upland - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6e.

ChG Colby Silt Loam, 30 To 60 Percent Slopes

Sulco soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a steep to very steep hillslope on canyon on upland. The runoff class is high. The parent material consists of calcareous loess. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon, it has a horizon that is slightly sodic. This soil is in the Thin Loess - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 7e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Chase County, Nebraska

CrB Creighton Very Fine Sandy Loam, 1 To 3 Percent Slopes

Creighton soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping stream terrace on valley. The runoff class is low. The parent material consists of calcareous loamy eolian deposits derived from limestone. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

CrC Creighton Very Fine Sandy Loam, 3 To 6 Percent Slopes

Creighton soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is low. The parent material consists of calcareous loamy eolian deposits derived from limestone. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

CrD Creighton Very Fine Sandy Loam, 6 To 11 Percent Slopes

Creighton soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping hillslope on upland. The runoff class is medium. The parent material consists of calcareous loamy eolian deposits derived from limestone. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

DbB Dailey Loamy Sand, 0 To 3 Percent Slopes

Dailey soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping interdune on sandhills. The runoff class is negligible. The parent material consists of eolian sands. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 2 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

DuC Duda-Tassel Loamy Sands, 3 To 6 Percent Slopes

Duda soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hummock on interfluve on upland. The runoff class is low. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

Tassel soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on interfluve on upland. The runoff class is medium. The parent material consists of residuum weathered from calcareous sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

Fu Fluvaquents, Silty

Fluvaquents soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level flood plain on valley. The runoff class is negligible. The parent material consists of silty alluvium. This soil is very poorly drained. The slowest permeability is moderately slow. It has a very low available water capacity and a low shrink swell potential. This soil is frequently flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 5 percent calcium carbonate. It is in the nonirrigated land capability classification 8w.

Gb Gannett Silt Loam, Overwash, 0 To 2 Percent Slopes

Gannett, OVERWASH, soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is negligible. The parent material consists of calcareous silty alluvium and/or loamy alluvium. This soil is very poorly drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Wet Land - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 5w.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Chase County, Nebraska

Gf Gibbon Silt Loam, 0 To 2 Percent Slopes

Gibbon soil makes up 95 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of stratified calcareous silty alluvium and/or loamy alluvium. This soil is somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 27 inches. The soil contains a maximum amount of 15 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Wet Subirrigated - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2w. It is in the nonirrigated land capability classification 2w.

Gh Goshen Silt Loam, 0 To 1 Percent Slopes

Goshen soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level swale on tableland. The runoff class is low. The parent material consists of silty alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a very high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

HaB Haxtun Loamy Fine Sand, 0 To 3 Percent Slopes

Haxtun soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping plain on tableland. The runoff class is medium. The parent material consists of sandy eolian deposits over fine-loamy loess. This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

HdB Haxtun Fine Sandy Loam, 0 To 3 Percent Slopes

Haxtun soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping plain on tableland. The runoff class is medium. The parent material consists of sandy eolian deposits over fine-loamy loess. This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

INT Aquolls

Aquolls soil makes up 100 percent of the map unit. This map unit is in the This soil occurs on a nearly level depression. The runoff class is negligible. The parent material consists of alluvium. This soil is very poorly drained. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is occasional ponded. The top of the seasonal high water table is at 0 inches. It is in the nonirrigated land capability classification 5w.

JaB Jayem Loamy Fine Sand, 0 To 3 Percent Slopes

Jayem soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping interdune on sandhills. The runoff class is very low. The parent material consists of sandy and silty eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 2 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

JaC Jayem Loamy Fine Sand, 3 To 6 Percent Slopes

Jayem soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on interdune on sandhills. The runoff class is very low. The parent material consists of sandy and silty eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 2 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

JcB Jayem Fine Sandy Loam, 0 To 3 Percent Slopes

Jayem soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping interdune on sandhills. The runoff class is very low. The parent material consists of sandy and silty eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 2 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 3e.

JcC Jayem Fine Sandy Loam, 3 To 6 Percent Slopes

Jayem soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on interdune on sandhills. The runoff class is very low. The parent material consists of sandy and silty eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 2 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

KeB Keith Silt Loam, 1 To 3 Percent Slopes

Keith soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of loess. This soil is well drained. The slowest permeability is moderately slow. It has a very high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

KeC2 Keith Silt Loam, 3 To 6 Percent Slopes, Eroded

Keith soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on tableland. The runoff class is high. The parent material consists of loess. This soil is well drained. The slowest permeability is moderately slow. It has a very high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Ku Kuma Silt Loam, 0 To 1 Percent Slopes

Kuma soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of loess. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

KuB Kuma Silt Loam, 1 To 3 Percent Slopes

Kuma soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of loess. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

KuC Kuma Silt Loam, 3 To 6 Percent Slopes

Kuma soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping plain on tableland. The runoff class is high. The parent material consists of loess. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

LaB Laird Fine Sandy Loam, 0 To 3 Percent Slopes

Laird soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on interdune on sandhills. The runoff class is very low. The parent material consists of loamy eolian deposits over lacustrine deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 40 percent calcium carbonate. This soil contains a moderately saline horizon, it has a horizon that is moderately sodic. This soil is in the Saline Lowland - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4s. It is in the nonirrigated land capability classification 4s.

Ma Mace Silt Loam, 0 To 1 Percent Slopes

Mace soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

MaB Mace Silt Loam, 1 To 3 Percent Slopes

Mace soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Mc Mace-Alliance Silt Loams, 0 To 1 Percent Slopes

Mace soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

Alliance soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level interfluve on upland. The runoff class is low. The parent material consists of loess over sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

McB Mace-Alliance Silt Loams, 1 To 3 Percent Slopes

Mace soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Alliance soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping interfluve on upland. The runoff class is medium. The parent material consists of loess over sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Mm Mccash Very Fine Sandy Loam, 0 To 1 Percent Slopes

Mccash soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level swale on tableland. The runoff class is negligible. The parent material consists of loamy colluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2c.

Mo Mccook Silt Loam, 0 To 1 Percent Slopes

Mccook soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is negligible. The parent material consists of stratified calcareous alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty Lowland - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

Mp Mccook Silt Loam, Occasionally Flooded, 0 To 2 Percent Slopes

Mccook soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of stratified calcareous alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty Lowland - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2w. It is in the nonirrigated land capability classification 2w.

MtB Mccook Silt Loam, Channeled, 0 To 3 Percent Slopes

Mccook soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of stratified calcareous alluvium. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty Overflow - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6w.

OaF Otero-Canyon Loams, 6 To 20 Percent Slopes

Otero soil makes up 70 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is medium. The parent material consists of calcareous loamy colluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6e.

Canyon soil makes up 30 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep hillslope on upland. The runoff class is high. The parent material consists of calcareous loamy residuum weathered from limestone and sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

OaG Otero-Canyon Loams, 20 To 45 Percent Slopes

Sulco soil makes up 60 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a steep to steep hillslope on canyon on upland. The runoff class is high. The parent material consists of loess. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil contains a very slightly saline horizon, it has a horizon that is slightly sodic. This soil is in the Limy Upland - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 7e.

Canyon soil makes up 40 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a steep to steep hillslope on canyon on upland. The runoff class is very high. The parent material consists of calcareous loamy residuum weathered from limestone and sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 7s.

Rs Rosebud Loam, 0 To 1 Percent Slopes

Rosebud soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of loess over weakly cemented fine grained sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

RsB Rosebud Loam, 1 To 3 Percent Slopes

Rosebud soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of loess over weakly cemented fine grained sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Rt Rosebud-Canyon Loams, 0 To 1 Percent Slopes

Rosebud soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of loess over weakly cemented fine grained sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

Canyon soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level plain on tableland. The runoff class is low. The parent material consists of calcareous loamy residuum weathered from limestone and sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

RtB Rosebud-Canyon Loams, 0 To 3 Percent Slopes

Rosebud soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping plain on tableland. The runoff class is medium. The parent material consists of loess over weakly cemented fine grained sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Canyon soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping plain on tableland. The runoff class is medium. The parent material consists of calcareous loamy residuum weathered from limestone and sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

RtC Rosebud-Canyon Loams, 3 To 6 Percent Slopes

Rosebud soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on tableland. The runoff class is high. The parent material consists of loess over weakly cemented fine grained sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

Canyon soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on tableland. The runoff class is high. The parent material consists of calcareous loamy residuum weathered from limestone and sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

RtD2 Rosebud-Canyon Loams, 6 To 11 Percent Slopes, Eroded

Rosebud soil makes up 60 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping hillslope on tableland. The runoff class is high. The parent material consists of loess over weakly cemented fine grained sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Canyon soil makes up 40 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping hillslope on tableland. The runoff class is high. The parent material consists of calcareous loamy residuum weathered from limestone and sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

SaC Sarben Loamy Very Fine Sand, 3 To 6 Percent Slopes

Sarben soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on tableland. The runoff class is very low. The parent material consists of sandy and loamy eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

SaD Sarben Loamy Very Fine Sand, 6 To 9 Percent Slopes

Sarben soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping hillslope on tableland. The runoff class is low. The parent material consists of sandy and loamy eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

SbB Satanta Very Fine Sandy Loam, 1 To 3 Percent Slopes

Satanta soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping plain on tableland. The runoff class is medium. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

SbC Satanta Very Fine Sandy Loam, 3 To 6 Percent Slopes

Satanta soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on tableland. The runoff class is high. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Sc Scott Silt Loam, 0 To 1 Percent Slopes

Lodgepole soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level playa on tableland. The runoff class is negligible. The parent material consists of loess. This soil is somewhat poorly drained. The slowest permeability is very slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Clayey Overflow - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4w. It is in the nonirrigated land capability classification 3w.

TaB Tassel-Duda Loamy Sands, 0 To 3 Percent Slopes

Tassel soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping ridge on tableland. The runoff class is medium. The parent material consists of residuum weathered from calcareous sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

Duda soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping interfluve on upland. The runoff class is low. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

TaF Tassel-Duda Loamy Sands, 3 To 30 Percent Slopes

Tassel soil makes up 62 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to steep hillslope on upland. The runoff class is very high. The parent material consists of residuum weathered from calcareous sandstone. The soil is 6 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6s.

Duda soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep hillslope on upland. The runoff class is high. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6e.

UsC2 Ulysses Silt Loam, 3 To 6 Percent Slopes, Eroded

Ulysses soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping hillslope on upland. The runoff class is medium. The parent material consists of calcareous loess. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

UsD2 Ulysses Silt Loam, 6 To 9 Percent Slopes, Eroded

Ulysses soil makes up 100 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping hillslope on upland. The runoff class is medium. The parent material consists of calcareous loess. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

VaF Valent Sand, Rolling

Valent soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep dune on sandhills. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sands - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6e.

VaG Valent Sand, Rolling And Hilly

Valent soil makes up 65 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately steep dune on sandhills. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sands - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 6e.

Valent soil makes up 35 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately steep to very steep dune on sandhills. The runoff class is low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Choppy Sands - Veg. Zone 2 range site. It is in the nonirrigated land capability classification 7e.

VcB Valent Loamy Sand, 0 To 3 Percent Slopes

Valent soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping hummock on sandhills. The runoff class is negligible. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

VcD Valent Loamy Sand, 3 To 9 Percent Slopes

Valent soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping dune on sandhills. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sands - Veg. Zone 2 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

VeB Vetal Fine Sandy Loam, 0 To 3 Percent Slopes

Vetal soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a gently sloping interdune on sandhills. The runoff class is very low. The parent material consists of loamy alluvium over eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Chase County, Nebraska

Wa Wann Fine Sandy Loam, 0 To 2 Percent Slopes

Wann soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is very low. The parent material consists of calcareous loamy alluvium. This soil is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 5 percent calcium carbonate. it has a horizon that is slightly sodic. This soil is in the Subirrigated - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2w. It is in the nonirrigated land capability classification 2w.

WoB Woodly Loamy Fine Sand, 0 To 3 Percent Slopes

Woodly soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping plain on tableland. The runoff class is low. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

WpB Woodly Fine Sandy Loam, 0 To 3 Percent Slopes

Woodly soil makes up 97 percent of the map unit. This map unit is in the Central High Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping plain on tableland. The runoff class is low. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderate. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 2 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Ac—Alliance silt loam, 0 to 1 percent slopes

Map Unit Composition

Alliance: 97 percent
Minor components: 3 percent

Component Descriptions
Alliance
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess over sandstone
Slope: 0 to 1 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 9 inches; silt loam
H2—9 to 17 inches; silty clay loam
H3—17 to 24 inches; silt loam
H4—24 to 50 inches; very fine sandy loam
Cr—50 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

AED—Arents, Earthen Dam

Map Unit Composition

Arents, Earthen Dam: 100 percent

Component Descriptions
Arents, Earthen Dam
MLRA: -
Depth to seasonal water saturation: More than 6 feet
Land capability (nonirrigated): 8

Af—Altvan loam, 0 to 1 percent slopes

Map Unit Composition

Altvan: 97 percent
Minor components: 3 percent

Component Descriptions
Altvan
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess over sandy and gravelly alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 5.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2s
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 7 inches; loam
H2—7 to 21 inches; clay loam
H3—21 to 26 inches; loam
H4—26 to 60 inches; coarse sand

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

AfB—Altvan loam, 1 to 3 percent slopes

Map Unit Composition

Altvan: 97 percent
Minor components: 3 percent

Component Descriptions
Altvan
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess over sandy and gravelly alluvium
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 5.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 7 inches; loam
H2—7 to 21 inches; clay loam
H3—21 to 26 inches; loam
H4—26 to 60 inches; gravelly coarse sand

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

AfC—Altvan loam, 3 to 6 percent slopes

Map Unit Composition

Altvan: 97 percent
Minor components: 3 percent

Component Descriptions
Altvan
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Loess over sandy and gravelly alluvium
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 5.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 7 inches; loam
H2—7 to 21 inches; clay loam
H3—21 to 26 inches; loam
H4—26 to 60 inches; coarse sand

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

AsB—Ascalon fine sandy loam, 1 to 3 percent slopes

Map Unit Composition

Ascalon: 97 percent
Minor components: 3 percent

Component Descriptions
Ascalon
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Moderately coarse textured calcareous loess
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 6.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 10 inches; fine sandy loam
H2—10 to 22 inches; sandy clay loam
H3—22 to 28 inches; fine sandy loam
H4—28 to 60 inches; fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

AsC—Ascalon fine sandy loam, 3 to 6 percent slopes

Map Unit Composition

Ascalon: 97 percent
Minor components: 3 percent

Component Descriptions
Ascalon
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Moderately coarse textured calcareous loess
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 6.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 10 inches; fine sandy loam
H2—10 to 22 inches; sandy clay loam
H3—22 to 28 inches; fine sandy loam
H4—28 to 60 inches; loamy fine sand

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

BeB—Blanche very fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Blanche: 97 percent
Minor components: 3 percent

Component Descriptions
Blanche
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loamy residuum weathered from calcareous sandstone
Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 5.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 11 inches; very fine sandy loam
H2—11 to 26 inches; fine sandy loam
H3—26 to 34 inches; fine sandy loam
Cr—34 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

Bg—Bridget silt loam, 0 to 1 percent slopes

Map Unit Composition

Bridget: 100 percent

Component Descriptions
Bridget
MLRA: 72 - Central High Tableland
Landform: Stream terrace on valley
Parent material: Loamy colluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 12 inches; silt loam
H2—12 to 21 inches; silt loam
H3—21 to 60 inches; very fine sandy loam

BgB—Bridget silt loam, 1 to 3 percent slopes

Map Unit Composition

Bridget: 100 percent

Component Descriptions
Bridget
MLRA: 72 - Central High Tableland
Landform: Stream terrace on valley
Parent material: Loamy colluvium
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 12 inches; silt loam
H2—12 to 21 inches; silt loam
H3—21 to 60 inches; very fine sandy loam

BuC—Bushman very fine sandy loam, 1 to 4 percent slopes

Map Unit Composition

Bushman: 100 percent

Component Descriptions
Bushman
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous colluvium
Slope: 1 to 4 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Limy Upland - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 7 inches; very fine sandy loam
H2—7 to 60 inches; very fine sandy loam

Cb—Caruso loam, 0 to 2 percent slopes

Map Unit Composition

Caruso: 97 percent
Minor components: 3 percent

Component Descriptions
Caruso
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Calcareous loamy alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 24 to 36 inches
Runoff class: Low
Ecological site: Saline Subirrigated - Veg. Zone 2
Land capability (irrigated): 2w
Land capability (nonirrigated): 2w

Typical Profile:
H1—0 to 12 inches; loam
H2—12 to 60 inches; loam

Minor Components
Gannett
Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Very poorly drained
Ecological site: Wet Land - Veg. Zone 2

ChD—Colby silt loam, 6 to 9 percent slopes

Map Unit Composition

Sulco: 97 percent
Minor components: 3 percent

Component Descriptions
Sulco
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loess
Slope: 6 to 9 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Limy Upland - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 4 inches; silt loam
H2—4 to 60 inches; silt loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

ChF—Colby silt loam, 9 to 30 percent slopes

Map Unit Composition

Sulco: 100 percent

Component Descriptions
Sulco
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loess
Slope: 9 to 30 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Limy Upland - Veg. Zone 2
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 4 inches; silt loam
H2—4 to 60 inches; silt loam

ChG—Colby silt loam, 30 to 60 percent slopes

Map Unit Composition

Sulco: 100 percent

Component Descriptions
Sulco
MLRA: 72 - Central High Tableland
Landform: Hillslope on canyon on upland
Parent material: Calcareous loess
Slope: 30 to 60 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Thin Loess - Veg. Zone 2
Land capability (nonirrigated): 7e

Typical Profile:
H1—0 to 4 inches; silt loam
H2—4 to 60 inches; silt loam

CrB—Creighton very fine sandy loam, 1 to 3 percent slopes

Map Unit Composition

Creighton: 97 percent
Minor components: 3 percent

Component Descriptions
Creighton
MLRA: 72 - Central High Tableland
Landform: Stream terrace on valley
Parent material: Calcareous loamy eolian deposits derived from limestone
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 12 inches; very fine sandy loam
H2—12 to 20 inches; very fine sandy loam
H3—20 to 60 inches; very fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

CrC—Creighton very fine sandy loam, 3 to 6 percent slopes

Map Unit Composition

Creighton: 97 percent
Minor components: 3 percent

Component Descriptions
Creighton
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loamy eolian deposits derived from limestone
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 12 inches; very fine sandy loam
H2—12 to 20 inches; very fine sandy loam
H3—20 to 60 inches; very fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

CrD—Creighton very fine sandy loam, 6 to 11 percent slopes

Map Unit Composition

Creighton: 100 percent

Component Descriptions
Creighton
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loamy eolian deposits derived from limestone
Slope: 6 to 11 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 12 inches; very fine sandy loam
H2—12 to 20 inches; very fine sandy loam
H3—20 to 60 inches; very fine sandy loam

DbB—Dailey loamy sand, 0 to 3 percent slopes

Map Unit Composition

Dailey: 97 percent
Minor components: 3 percent

Component Descriptions
Dailey
MLRA: 72 - Central High Tableland
Landform: Interdune on sandhills
Parent material: Eolian sands
Slope: 0 to 3 percent
Drainage class: Somewhat excessively drained
Slowest permeability: Rapid (About 6.00 in/hr)
Available water capacity: Low (About 4.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 14 inches; loamy sand
H2—14 to 60 inches; loamy sand

Minor Components
Tryon
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Wet Subirrigated

DuC—Duda-Tassel loamy sands, 3 to 6 percent slopes

Map Unit Composition

Duda: 62 percent
Tassel: 35 percent
Minor components: 3 percent

Component Descriptions
Duda
MLRA: 72 - Central High Tableland
Landform: Hummock on interfluve on upland
Parent material: Sandy eolian deposits derived from sandstone
Slope: 3 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 2.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 7 inches; loamy sand
H2—7 to 28 inches; fine sand
2Cr—28 to 60 inches; weathered bedrock

Tassel
MLRA: 72 - Central High Tableland
Landform: Hillslope on interfluve on upland
Parent material: Residuum weathered from calcareous sandstone
Slope: 3 to 6 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 2.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 5 inches; loamy sand
H2—5 to 16 inches; fine sandy loam
2Cr—16 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

Fu—Fluvaquents, silty

Map Unit Composition

Fluvaquents: 100 percent

Component Descriptions
Fluvaquents
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Silty alluvium
Slope: 0 to 1 percent
Drainage class: Very poorly drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Very low (About 1.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Ponding hazard: Frequent
Depth to seasonal water saturation: About 0 to 0 inches
Runoff class: Negligible
Land capability (nonirrigated): 8w

Typical Profile:
H1—0 to 6 inches; silt loam
H2—6 to 60 inches; variable

Gb—Gannett silt loam, Overwash, 0 to 2 percent slopes

Map Unit Composition

Gannett: 100 percent

Component Descriptions
Gannett
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Calcareous silty alluvium and/or loamy alluvium
Slope: 0 to 2 percent
Drainage class: Very poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 0 to 0 inches
Runoff class: Negligible
Ecological site: Wet Land - Veg. Zone 2
Land capability (nonirrigated): 5w

Typical Profile:
H1—0 to 4 inches; silt loam
H2—4 to 60 inches; fine sandy loam

Gf—Gibbon silt loam, 0 to 2 percent slopes

Map Unit Composition

Gibbon: 95 percent
Minor components: 5 percent

Component Descriptions
Gibbon
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Stratified calcareous silty alluvium and/or loamy alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 18 to 36 inches
Runoff class: Low
Ecological site: Wet Subirrigated - Veg. Zone 2
Land capability (irrigated): 2w
Land capability (nonirrigated): 2w

Typical Profile:
H1—0 to 9 inches; silt loam
H2—9 to 27 inches; silt loam
H3—27 to 60 inches; stratified very fine sandy loam to silt loam

Minor Components
Gannett
Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Very poorly drained
Ecological site: Wet Land - Veg. Zone 2

Fluvaquents
Composition: About 2 percent
Slope: 0 to 1 percent
Drainage class: Very poorly drained

Gh—Goshen silt loam, 0 to 1 percent slopes

Map Unit Composition

Goshen: 97 percent
Minor components: 3 percent

Component Descriptions
Goshen
MLRA: 72 - Central High Tableland
Landform: Swale on tableland
Parent material: Silty alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Very high (About 12.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 10 inches; silt loam
H2—10 to 32 inches; silty clay loam
H3—32 to 60 inches; silt loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

HaB—Haxtun loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Haxtun: 97 percent
Minor components: 3 percent

Component Descriptions
Haxtun
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Sandy eolian deposits over fine-loamy loess
Slope: 0 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Moderate (About 8.6 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 13 inches; loamy fine sand
H2—13 to 19 inches; fine sandy loam
H3—19 to 36 inches; sandy clay loam
H4—36 to 60 inches; very fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

HdB—Haxtun fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Haxtun: 97 percent
Minor components: 3 percent

Component Descriptions
Haxtun
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Sandy eolian deposits over fine-loamy loess
Slope: 0 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 11 inches; fine sandy loam
H2—11 to 36 inches; loam
H3—36 to 50 inches; very fine sandy loam
H4—50 to 60 inches; loamy very fine sand

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

INT—Aquolls

Map Unit Composition

Aquolls: 100 percent

Component Descriptions
Aquolls
MLRA: -
Landform: Depression
Parent material: Alluvium
Slope: 0 to 1 percent
Drainage class: Very poorly drained
Flooding hazard: None
Ponding hazard: Occasional
Depth to seasonal water saturation: About 0 to 0 inches
Runoff class: Negligible
Land capability (nonirrigated): 5w

Typical Profile:
H1—0 to 72 inches; variable

General Considerations: This map unit was formerly labeled as an Intermittent Water spot symbol. These depressional areas contain soils that are occasionally ponded for long duration.

JaB—Jayem loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Jayem: 97 percent
Minor components: 3 percent

Component Descriptions
Jayem
MLRA: 72 - Central High Tableland
Landform: Interdune on sandhills
Parent material: Sandy and silty eolian deposits
Slope: 0 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 7.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 12 inches; loamy fine sand
H2—12 to 24 inches; fine sandy loam
H3—24 to 60 inches; fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

JaC—Jayem loamy fine sand, 3 to 6 percent slopes

Map Unit Composition

Jayem: 97 percent
Minor components: 3 percent

Component Descriptions
Jayem
MLRA: 72 - Central High Tableland
Landform: Hillslope on interdune on sandhills
Parent material: Sandy and silty eolian deposits
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 7.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 12 inches; loamy fine sand
H2—12 to 24 inches; fine sandy loam
H3—24 to 60 inches; fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

JcB—Jayem fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Jayem: 97 percent
Minor components: 3 percent

Component Descriptions
Jayem
MLRA: 72 - Central High Tableland
Landform: Interdune on sandhills
Parent material: Sandy and silty eolian deposits
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 7.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 11 inches; fine sandy loam
H2—11 to 21 inches; fine sandy loam
H3—21 to 42 inches; fine sandy loam
H4—42 to 60 inches; loamy fine sand

Minor Components

Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

JcC—Jayem fine sandy loam, 3 to 6 percent slopes

Map Unit Composition

Jayem: 100 percent

Component Descriptions
Jayem
MLRA: 72 - Central High Tableland
Landform: Hillslope on interdune on sandhills
Parent material: Sandy and silty eolian deposits
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 7.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 11 inches; fine sandy loam
H2—11 to 21 inches; fine sandy loam
H3—21 to 42 inches; fine sandy loam
H4—42 to 60 inches; loamy fine sand

KeB—Keith silt loam, 1 to 3 percent slopes

Map Unit Composition

Keith: 97 percent
Minor components: 3 percent

Component Descriptions
Keith
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Very high (About 12.3 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 6 inches; silt loam
H2—6 to 23 inches; silty clay loam
H3—23 to 60 inches; silt loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

KeC2—Keith silt loam, 3 to 6 percent slopes, Eroded

Map Unit Composition

Keith: 97 percent
Minor components: 3 percent

Component Descriptions
Keith
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland
Parent material: Loess
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Very high (About 12.3 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 6 inches; silt loam
H2—6 to 23 inches; silty clay loam
H3—23 to 60 inches; silt loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

Ku—Kuma silt loam, 0 to 1 percent slopes

Map Unit Composition

Kuma: 97 percent
Minor components: 3 percent

Component Descriptions
Kuma
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 10 inches; silt loam
H2—10 to 35 inches; silt loam
H3—35 to 60 inches; silt loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

KuB—Kuma silt loam, 1 to 3 percent slopes

Map Unit Composition

Kuma: 97 percent
Minor components: 3 percent

Component Descriptions
Kuma
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 10 inches; silt loam
H2—10 to 35 inches; silt loam
H3—35 to 60 inches; silt loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

KuC—Kuma silt loam, 3 to 6 percent slopes

Map Unit Composition

Kuma: 100 percent

Component Descriptions
Kuma
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 11.1 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 10 inches; silt loam
H2—10 to 35 inches; silt loam
H3—35 to 60 inches; silt loam

LaB—Laird fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Laird: 97 percent
Minor components: 3 percent

Component Descriptions
Laird
MLRA: 72 - Central High Tableland
Landform: Swale on interdune on sandhills
Parent material: Loamy eolian deposits over lacustrine deposits
Slope: 0 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 6.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Saline Lowland - Veg. Zone 2
Land capability (irrigated): 4s
Land capability (nonirrigated): 4s

Typical Profile:
H1—0 to 10 inches; fine sandy loam
H2—10 to 26 inches; very fine sandy loam
H3—26 to 60 inches; fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

LD—Sanitary Landfill

Map Unit Composition

M-W—Miscellaneous Water, Sewage Lagoons

Map Unit Composition

Miscellaneous Water: 100 percent

Component Descriptions
Miscellaneous Water
MLRA: -
Depth to seasonal water saturation: More than 6 feet

Ma—Mace silt loam, 0 to 1 percent slopes

Map Unit Composition

Mace: 97 percent

Minor components: 3 percent

Component Descriptions
Mace
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous loamy residuum weathered from sandstone
Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 5.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 5 inches; silt loam
H2—5 to 18 inches; silty clay loam
H3—18 to 23 inches; silt loam
H4—23 to 30 inches; silt loam
Cr—30 to 80 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

MaB—Mace silt loam, 1 to 3 percent slopes

Map Unit Composition

Mace: 100 percent

Component Descriptions
Mace
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous loamy residuum weathered from sandstone
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 5.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 5 inches; silt loam
H2—5 to 18 inches; silty clay loam
H3—18 to 23 inches; silt loam
H4—23 to 28 inches; silt loam
Cr—28 to 80 inches; weathered bedrock

Mc—Mace-Alliance silt loams, 0 to 1 percent slopes

Map Unit Composition

Mace: 62 percent
Alliance: 35 percent
Minor components: 3 percent

Component Descriptions
Mace
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous loamy residuum weathered from sandstone
Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 5.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1

Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 6 inches; silt loam
H2—6 to 18 inches; silty clay loam
H3—18 to 24 inches; silt loam
H4—24 to 34 inches; silt loam
Cr—34 to 60 inches; weathered bedrock

Alliance
MLRA: 72 - Central High Tableland
Landform: Interfluve on upland
Parent material: Loess over sandstone
Slope: 0 to 1 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 12 inches; silt loam
H2—12 to 18 inches; silty clay loam
H3—18 to 21 inches; silt loam
H4—21 to 45 inches; very fine sandy loam
Cr—45 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

McB—Mace-Alliance silt loams, 1 to 3 percent slopes

Map Unit Composition

Mace: 62 percent
Alliance: 35 percent
Minor components: 3 percent

Component Descriptions
Mace
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous loamy residuum weathered from sandstone
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 5.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 6 inches; silt loam
H2—6 to 18 inches; silty clay loam
H3—18 to 24 inches; silt loam
H4—24 to 34 inches; very fine sandy loam
Cr—34 to 60 inches; weathered bedrock

Alliance
MLRA: 72 - Central High Tableland
Landform: Interfluve on upland
Parent material: Loess over sandstone
Slope: 1 to 3 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 12 inches; silt loam
H2—12 to 18 inches; silty clay loam
H3—18 to 21 inches; silt loam
H4—21 to 45 inches; very fine sandy loam
Cr—45 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

Mm—Mccash very fine sandy loam, 0 to 1 percent slopes

Map Unit Composition

Mccash: 97 percent
Minor components: 3 percent

Component Descriptions
Mccash
MLRA: 72 - Central High Tableland
Landform: Swale on tableland
Parent material: Loamy colluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 16 inches; very fine sandy loam
H2—16 to 46 inches; very fine sandy loam
H3—46 to 60 inches; very fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

Mo—Mccook silt loam, 0 to 1 percent slopes

Map Unit Composition

Mccook: 100 percent

Component Descriptions
Mccook
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Stratified calcareous alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Silty Lowland - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 10 inches; silt loam
H2—10 to 60 inches; silt loam

Mp—Mccook silt loam, Occasionally Flooded, 0 to 2 percent slopes

Map Unit Composition

Mccook: 100 percent

Component Descriptions
Mccook
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Stratified calcareous alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional

Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty Lowland - Veg. Zone 2
Land capability (irrigated): 2w
Land capability (nonirrigated): 2w

Typical Profile:
H1—0 to 15 inches; silt loam
H2—15 to 60 inches; silt loam

MtB—Mccook silt loam, Channeled, 0 to 3 percent slopes

Map Unit Composition

Mccook: 100 percent

Component Descriptions
Mccook
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Stratified calcareous alluvium
Slope: 0 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty Overflow - Veg. Zone 2
Land capability (nonirrigated): 6w

Typical Profile:
H1—0 to 15 inches; silt loam
H2—15 to 60 inches; silt loam

OaF—Otero-Canyon loams, 6 to 20 percent slopes

Map Unit Composition

Otero: 70 percent
Canyon: 30 percent

Component Descriptions
Otero
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loamy colluvium
Slope: 6 to 20 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: High (About 9.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Sandy - Veg. Zone 2
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 7 inches; loam
H2—7 to 60 inches; very fine sandy loam

Canyon
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loamy residuum weathered from limestone and sandstone
Slope: 6 to 20 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 10 inches; loam
H2—10 to 17 inches; loam
Cr—17 to 60 inches; weathered bedrock

OaG—Otero-Canyon loams, 20 to 45 percent slopes

Map Unit Composition

Sulco: 60 percent
Canyon: 40 percent

Component Descriptions
Sulco
MLRA: 72 - Central High Tableland
Landform: Hillslope on canyon on upland
Parent material: Loess
Slope: 30 to 45 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Limy Upland - Veg. Zone 2
Land capability (nonirrigated): 7e

Typical Profile:
H1—0 to 7 inches; loam
H2—7 to 60 inches; loam

Canyon
MLRA: 72 - Central High Tableland
Landform: Hillslope on canyon on upland
Parent material: Calcareous loamy residuum weathered from limestone and sandstone
Slope: 20 to 45 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 7s

Typical Profile:
H1—0 to 10 inches; loam
H2—10 to 17 inches; loam
Cr—17 to 60 inches; weathered bedrock

Rs—Rosebud loam, 0 to 1 percent slopes

Map Unit Composition

Rosebud: 97 percent
Minor components: 3 percent

Component Descriptions
Rosebud
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess over weakly cemented fine grained sandstone
Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 5 inches; loam
H2—5 to 15 inches; clay loam
H3—15 to 34 inches; loam
Cr—34 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

RsB—Rosebud loam, 1 to 3 percent slopes

Map Unit Composition

Rosebud: 97 percent
Minor components: 3 percent

Component Descriptions
Rosebud
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess over weakly cemented fine grained sandstone
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 5 inches; loam
H2—5 to 15 inches; clay loam
H3—15 to 34 inches; sandy loam
Cr—34 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

Rt—Rosebud-Canyon loams, 0 to 1 percent slopes

Map Unit Composition
Rosebud: 62 percent
Canyon: 35 percent
Minor components: 3 percent

Component Descriptions
Rosebud
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess over weakly cemented fine grained sandstone
Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:
H1—0 to 6 inches; loam
H2—6 to 15 inches; clay loam
H3—15 to 30 inches; fine sandy loam
Cr—30 to 60 inches; weathered bedrock

Canyon
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous loamy residuum weathered from limestone and sandstone
Slope: 0 to 1 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 11 inches; loam
H2—11 to 14 inches; loam
Cr—14 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

RtB—Rosebud-Canyon loams, 0 to 3 percent slopes

Map Unit Composition

Rosebud: 62 percent
Canyon: 35 percent
Minor components: 3 percent

Component Descriptions
Rosebud
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loess over weakly cemented fine grained sandstone
Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 6 inches; loam
H2—6 to 15 inches; clay loam
H3—15 to 30 inches; very fine sandy loam
Cr—30 to 60 inches; weathered bedrock

Canyon
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Calcareous loamy residuum weathered from limestone and sandstone
Slope: 0 to 3 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 11 inches; loam
H2—11 to 14 inches; loam
Cr—14 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

RtC—Rosebud-Canyon loams, 3 to 6 percent slopes

Map Unit Composition

Rosebud: 62 percent
Canyon: 35 percent
Minor components: 3 percent

Component Descriptions
Rosebud
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland
Parent material: Loess over weakly cemented fine grained sandstone
Slope: 3 to 6 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 6 inches; loam
H2—6 to 15 inches; clay loam
H3—15 to 30 inches; sandy loam
Cr—30 to 60 inches; weathered bedrock

Canyon
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland

Parent material: Calcareous loamy residuum weathered from limestone and sandstone
Slope: 3 to 6 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 11 inches; loam
H2—11 to 14 inches; loam
Cr—14 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

RtD2—Rosebud-Canyon loams, 6 to 11 percent slopes, Eroded

Map Unit Composition

Rosebud: 60 percent
Canyon: 40 percent

Component Descriptions
Rosebud
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland
Parent material: Loess over weakly cemented fine grained sandstone
Slope: 6 to 11 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 6 inches; loam
H2—6 to 15 inches; clay loam
H3—15 to 30 inches; sandy loam
Cr—30 to 60 inches; weathered bedrock

Canyon
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland
Parent material: Calcareous loamy residuum weathered from limestone and sandstone
Slope: 6 to 11 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very low (About 2.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 11 inches; loam
H2—11 to 14 inches; loam
Cr—14 to 60 inches; weathered bedrock

SaC—Sarben loamy very fine sand, 3 to 6 percent slopes

Map Unit Composition

Sarben: 97 percent
Minor components: 3 percent

Component Descriptions
Sarben
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland
Parent material: Sandy and loamy eolian deposits

Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 6 inches; loamy very fine sand
H2—6 to 17 inches; loamy very fine sand
H3—17 to 27 inches; loamy very fine sand
H4—27 to 60 inches; loamy very fine sand

Minor Components
Tryon
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Wet Subirrigated

SaD—Sarben loamy very fine sand, 6 to 9 percent slopes

Map Unit Composition

Sarben: 97 percent
Minor components: 3 percent

Component Descriptions
Sarben
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland
Parent material: Sandy and loamy eolian deposits
Slope: 6 to 9 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 6 inches; loamy very fine sand
H2—6 to 17 inches; loamy very fine sand
H3—17 to 27 inches; loamy very fine sand
H4—27 to 60 inches; loamy very fine sand

Minor Components
Tryon
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Wet Subirrigated

SbB—Satanta very fine sandy loam, 1 to 3 percent slopes

Map Unit Composition

Satanta: 97 percent
Minor components: 3 percent

Component Descriptions
Satanta
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loamy eolian deposits
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 9 inches; very fine sandy loam
H2—9 to 23 inches; clay loam
H3—23 to 60 inches; very fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained

Ecological site: Clayey Overflow - Veg. Zone 2

SbC—Satanta very fine sandy loam, 3 to 6 percent slopes

Map Unit Composition
Satanta: 97 percent
Minor components: 3 percent

Component Descriptions
Satanta
MLRA: 72 - Central High Tableland
Landform: Hillslope on tableland
Parent material: Loamy eolian deposits
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 9.5 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 9 inches; very fine sandy loam
H2—9 to 23 inches; clay loam
H3—23 to 60 inches; very fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

Sc—Scott silt loam, 0 to 1 percent slopes

Map Unit Composition

Lodgepole: 100 percent

Component Descriptions
Lodgepole
MLRA: 72 - Central High Tableland
Landform: Playa on tableland
Parent material: Loess
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: High (About 11.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Ponding hazard: Frequent
Depth to seasonal water saturation: About 0 to 0 inches
Runoff class: Negligible
Ecological site: Clayey Overflow - Veg. Zone 2
Land capability (irrigated): 4w
Land capability (nonirrigated): 3w

Typical Profile:
H1—0 to 4 inches; silt loam
H2—4 to 32 inches; silty clay
H3—32 to 60 inches; silt loam

TaB—Tassel-Duda loamy sands, 0 to 3 percent slopes

Map Unit Composition

Tassel: 62 percent
Duda: 35 percent
Minor components: 3 percent

Component Descriptions
Tassel
MLRA: 72 - Central High Tableland
Landform: Ridge on tableland
Parent material: Residuum weathered from calcareous sandstone
Slope: 0 to 3 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 1.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 6 inches; loamy sand
H2—6 to 16 inches; fine sandy loam
2Cr—16 to 60 inches; weathered bedrock

Duda
MLRA: 72 - Central High Tableland
Landform: Interfluve on upland
Parent material: Sandy eolian deposits derived from sandstone
Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 1.98 in/hr)
Available water capacity: Very low (About 2.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 4 inches; loamy sand
H2—4 to 30 inches; sand
2Cr—30 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

TaF—Tassel-Duda loamy sands, 3 to 30 percent slopes

Map Unit Composition

Tassel: 62 percent
Duda: 35 percent
Minor components: 3 percent

Component Descriptions
Tassel
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Residuum weathered from calcareous sandstone
Slope: 3 to 30 percent
Depth to restrictive feature: 6 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 1.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Shallow Limy - Veg. Zone 2
Land capability (nonirrigated): 6s

Typical Profile:
H1—0 to 6 inches; loamy sand
H2—6 to 16 inches; fine sandy loam
2Cr—16 to 60 inches; weathered bedrock

Duda
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Sandy eolian deposits derived from sandstone
Slope: 9 to 30 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderately rapid (About 1.98 in/hr)
Available water capacity: Very low (About 2.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Sandy - Veg. Zone 2
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 4 inches; loamy sand
H2—4 to 30 inches; sand
2Cr—30 to 60 inches; weathered bedrock

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

UsC2—Ulysses silt loam, 3 to 6 percent slopes, Eroded

Map Unit Composition

Ulysses: 97 percent
Minor components: 3 percent

Component Descriptions
Ulysses
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loess
Slope: 3 to 6 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 5 inches; silt loam
H2—5 to 36 inches; silt loam
H3—36 to 60 inches; silt loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

UsD2—Ulysses silt loam, 6 to 9 percent slopes, Eroded

Map Unit Composition

Ulysses: 100 percent

Component Descriptions
Ulysses
MLRA: 72 - Central High Tableland
Landform: Hillslope on upland
Parent material: Calcareous loess
Slope: 6 to 9 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:
H1—0 to 5 inches; silt loam
H2—5 to 36 inches; silt loam
H3—36 to 60 inches; silt loam

VaF—Valent sand, Rolling

Map Unit Composition

Valent: 97 percent
Minor components: 3 percent

Component Descriptions
Valent
MLRA: 72 - Central High Tableland
Landform: Dune on sandhills
Parent material: Eolian sands
Slope: 9 to 17 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Very low (About 2.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sands - Veg. Zone 2
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 4 inches; sand
H2—4 to 60 inches; sand

Minor Components

Tryon
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Wet Subirrigated

VaG—Valent sand, Rolling And Hilly

Map Unit Composition

Valent: 65 percent
Valent: 35 percent

Component Descriptions
Valent
MLRA: 72 - Central High Tableland
Landform: Dune on sandhills
Parent material: Eolian sands
Slope: 14 to 17 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Very low (About 2.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sands - Veg. Zone 2
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 4 inches; sand
H2—4 to 60 inches; sand

Valent
MLRA: 72 - Central High Tableland
Landform: Dune on sandhills
Parent material: Eolian sands
Slope: 17 to 60 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Very low (About 2.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Choppy Sands - Veg. Zone 2
Land capability (nonirrigated): 7e

Typical Profile:
H1—0 to 4 inches; sand
H2—4 to 60 inches; sand

VcB—Valent loamy sand, 0 to 3 percent slopes

Map Unit Composition

Valent: 97 percent
Minor components: 3 percent

Component Descriptions
Valent
MLRA: 72 - Central High Tableland
Landform: Hummock on sandhills
Parent material: Eolian sands
Slope: 0 to 3 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Very low (About 2.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 8 inches; loamy sand
H2—8 to 60 inches; sand

Minor Components
Tryon
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Wet Subirrigated

VcD—Valent loamy sand, 3 to 9 percent slopes

Map Unit Composition

Valent: 97 percent
Minor components: 3 percent

Component Descriptions
Valent

MLRA: 72 - Central High Tableland
Landform: Dune on sandhills
Parent material: Eolian sands
Slope: 3 to 9 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Very low (About 2.7 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sands - Veg. Zone 2
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:
H1—0 to 6 inches; loamy sand
H2—6 to 60 inches; sand

Minor Components
Tryon
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Wet Subirrigated

VeB—Vetal fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Vetal: 97 percent
Minor components: 3 percent

Component Descriptions
Vetal
MLRA: 72 - Central High Tableland
Landform: Interdune on sandhills
Parent material: Loamy alluvium over eolian deposits
Slope: 1 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 9 inches; fine sandy loam
H2—9 to 48 inches; fine sandy loam
H3—48 to 60 inches; fine sandy loam

Minor Components
Tryon
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Wet Subirrigated

W—Water

Map Unit Composition

Water: 100 percent

Component Descriptions
Water
MLRA: -
Depth to seasonal water saturation: More than 6 feet

General Considerations: Water includes streams, lakes, ponds, and estuaries. These areas are covered with water in most years, at least during the period that is warm enough for plants to grow. Many areas are covered throughout the year.

Wa—Wann fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Wann: 97 percent
Minor components: 3 percent

Component Descriptions
Wann
MLRA: 72 - Central High Tableland
Landform: Flood plain on valley
Parent material: Calcareous loamy alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 7.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 18 to 42 inches
Runoff class: Very low
Ecological site: Subirrigated - Veg. Zone 2
Land capability (irrigated): 2w
Land capability (nonirrigated): 2w

Typical Profile:
H1—0 to 12 inches; fine sandy loam
H2—12 to 26 inches; fine sandy loam
H3—26 to 60 inches; stratified very fine sandy loam to fine sand to coarse sand

Minor Components
Gannett
Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Very poorly drained
Ecological site: Wet Land - Veg. Zone 2

WoB—Woodly loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Woodly: 97 percent
Minor components: 3 percent

Component Descriptions
Woodly
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loamy eolian deposits
Slope: 0 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Moderate (About 7.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:
H1—0 to 9 inches; loamy fine sand
H2—9 to 24 inches; sandy clay loam
H3—24 to 60 inches; fine sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

WpB—Woodly fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Woodly: 97 percent
Minor components: 3 percent

Component Descriptions
Woodly
MLRA: 72 - Central High Tableland
Landform: Plain on tableland
Parent material: Loamy eolian deposits
Slope: 0 to 3 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 9.1 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 2
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
H1—0 to 16 inches; fine sandy loam
H2—16 to 38 inches; sandy clay loam
H3—38 to 60 inches; sandy loam

Minor Components
Lodgepole
Composition: About 3 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clayey Overflow - Veg. Zone 2

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS
Chase County, Nebraska

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive land-forming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes. In the capability system, soils are generally grouped at three levels: capability class, subclass, and unit.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

(Class 1) soils have slight limitations that restrict their use.

(Class 2) soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

(Class 3) soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

(Class 4) soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

(Class 5) soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

(Class 6) soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

(Class 7) soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

(Class 8) soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, 2e. The letter e shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief. limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by w, s, or c because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of map units in this survey area is given in the section "Detailed Soil Map Units" and in the Land Capability and Component Yields table.

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops under a high level of management are shown in "Land Capibility and Component Yields" table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, animal waste manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in this table, are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service (NRCS) or the Cooperative Extension Service (CES) can provide information about the management and productivity of the soils for those crops.

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Dry pinto beans		Corn		Sugar beets		Winter wheat	
	N	I	N	I	N	I	N	I	N	I
			Lbs		Bu		Tons		Bu	
Ac: ALLIANCE--------	2c	1	---	2,250.00	---	140.00	---	23.00	40.00	---
AED: ARENTS, EARTHEN DAM----------	8	---	---	---	---	---	---	---	---	---
Af: ALTVAN----------	2c	2s	---	1,900.00	---	120.00	---	18.00	27.00	---
AfB: ALTVAN----------	3e	3e	---	1,850.00	---	115.00	---	18.00	24.00	---
AfC: ALTVAN----------	4e	4e	---	1,600.00	---	105.00	---	13.00	22.00	---
AsB: ASCALON---------	2e	2e	---	2,100.00	---	125.00	---	21.00	30.00	---
AsC: ASCALON---------	3e	3e	---	1,900.00	---	115.00	---	18.00	29.00	---
BeB: BLANCHE---------	4e	4e	---	---	---	105.00	---	---	15.00	---
Bg: BRIDGET---------	2c	1	---	2,100.00	---	135.00	---	20.00	34.00	---
BgB: BRIDGET---------	2e	2e	---	2,050.00	---	130.00	---	19.00	32.00	---
BuC: BUSHMAN---------	3e	2e	---	---	---	115.00	---	---	24.00	---
Cb: CARUSO----------	2w	2w	---	---	---	115.00	---	---	25.00	---
ChD: SULCO----------	4e	4e	---	---	---	90.00	---	---	---	---
ChF: SULCO----------	6e	---	---	---	---	---	---	---	---	---
ChG: SULCO----------	7e	---	---	---	---	---	---	---	---	---
CrB: CREIGHTON-------	2e	2e	---	2,050.00	---	130.00	---	19.00	32.00	---
CrC: CREIGHTON-------	3e	3e	---	1,900.00	---	120.00	---	17.00	29.00	---
CrD: CREIGHTON-------	4e	4e	---	---	---	---	---	---	26.00	---
DbB: DAILEY----------	4e	4e	---	---	---	120.00	---	---	---	---
DuC: DUDA----------	6e	4e	---	---	---	70.00	---	---	15.00	---
TASSEL----------	6s	---	---	---	---	70.00	---	---	15.00	---
Fu: FLUVAQUENTS-----	8w	---	---	---	---	---	---	---	---	---
Gb: GANNETT---------	5w	---	---	---	---	---	---	---	---	---
Gf: GIBBON----------	2w	2w	---	---	---	120.00	---	---	30.00	---
Gh: GOSHEN----------	2c	1	---	2,250.00	---	145.00	---	23.00	38.00	---
HaB: HAXTUN----------	3e	3e	---	---	---	125.00	---	18.00	30.00	---
HdB: HAXTUN----------	2e	2e	---	1,900.00	---	130.00	---	21.00	33.00	---

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Dry pinto beans		Corn		Sugar beets		Winter wheat	
	N	I	N	I	N	I	N	I	N	I
			Lbs		Bu		Tons		Bu	
INT: AQUOLLS	5w	---	---	---	---	---	---	---	---	---
JaB: JAYEM	4e	3e	---	---	---	120.00	---	---	22.00	---
JaC: JAYEM	4e	4e	---	---	---	100.00	---	---	20.00	---
JcB: JAYEM	3e	2e	---	1,900.00	---	125.00	---	17.00	26.00	---
JcC: JAYEM	4e	3e	---	---	---	115.00	---	---	22.00	---
KeB: KEITH	2e	2e	---	2,000.00	---	135.00	---	21.00	38.00	---
KeC2: KEITH	3e	3e	---	1,800.00	---	120.00	---	18.00	32.00	---
Ku: KUMA	2c	1	---	2,250.00	---	145.00	---	23.00	40.00	---
KuB: KUMA	2e	2e	---	2,200.00	---	140.00	---	21.00	38.00	---
KuC: KUMA	3e	3e	---	2,150.00	---	125.00	---	19.00	35.00	---
LaB: LAIRD	4s	4s	---	---	---	95.00	---	---	15.00	---
LD:	---	---	---	---	---	---	---	---	---	---
M-W: MISCELLANEOUS WATER	---	---	---	---	---	---	---	---	---	---
Ma: MACE	2c	1	---	2,000.00	---	135.00	---	19.00	32.00	---
MaB: MACE	2e	2e	---	1,900.00	---	130.00	---	18.00	30.00	---
Mc: MACE	2c	1	---	2,050.00	---	136.00	---	20.00	33.00	---
ALLIANCE	2c	1	---	2,050.00	---	136.00	---	20.00	33.00	---
McB: MACE	2e	2e	---	1,900.00	---	127.00	---	18.00	31.00	---
ALLIANCE	2e	2e	---	1,900.00	---	127.00	---	18.00	31.00	---
Mm: MCCASH	2c	2e	---	---	---	130.00	---	---	38.00	---
Mo: MCCOOK	2c	1	---	2,100.00	---	135.00	---	20.00	35.00	---
Mp: MCCOOK	2w	2w	---	2,050.00	---	130.00	---	19.00	35.00	---
MtB: MCCOOK	6w	---	---	---	---	---	---	---	---	---
OaF: OTERO	6e	---	---	---	---	---	---	---	---	---
CANYON	6s	---	---	---	---	---	---	---	---	---
OaG: SULCO	7e	---	---	---	---	---	---	---	---	---
CANYON	7s	---	---	---	---	---	---	---	---	---
Rs: ROSEBUD	2c	1	---	1,900.00	---	130.00	---	18.00	30.00	---

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Dry pinto beans		Corn		Sugar beets		Winter wheat	
	N	I	N	I	N	I	N	I	N	I
			Lbs		Bu		Tons		Bu	
RsB: ROSEBUD	3e	3e	---	1,900.00	---	120.00	---	17.00	28.00	---
Rt: ROSEBUD	2c	1	---	1,800.00	---	115.00	---	15.00	15.00	---
CANYON	6s	---	---	1,800.00	---	115.00	---	15.00	15.00	---
RtB: ROSEBUD	3e	3e	---	1,800.00	---	115.00	---	14.00	14.00	---
CANYON	6s	---	---	1,800.00	---	115.00	---	14.00	14.00	---
RtC: ROSEBUD	4e	3e	---	1,600.00	---	110.00	---	13.00	22.00	---
CANYON	6s	---	---	1,600.00	---	110.00	---	13.00	22.00	---
RtD2: ROSEBUD	4e	4e	---	1,500.00	---	95.00	---	10.00	20.00	---
CANYON	6s	---	---	1,500.00	---	95.00	---	10.00	20.00	---
SaC: SARBEN	4e	4e	---	---	---	100.00	---	---	25.00	---
SaD: SARBEN	4e	4e	---	---	---	95.00	---	---	22.00	---
SbB: SATANTA	2e	2e	---	---	---	130.00	---	---	30.00	---
SbC: SATANTA	3e	3e	---	---	---	130.00	---	---	30.00	---
Sc: LODGEPOLE	3w	4w	---	---	---	---	---	---	10.00	---
TaB: TASSEL	6s	---	---	---	---	---	---	---	---	---
DUDA	4e	4e	---	---	---	---	---	---	---	---
TaF: TASSEL	6s	---	---	---	---	---	---	---	---	---
DUDA	6e	---	---	---	---	---	---	---	---	---
UsC2: ULYSSES	3e	3e	---	---	---	115.00	---	---	24.00	---
UsD2: ULYSSES	4e	4e	---	---	---	100.00	---	---	22.00	---
VaF: VALENT	6e	---	---	1,500.00	---	140.00	---	---	---	40.00
VaG: VALENT	6e	---	---	---	---	---	---	---	---	---
VALENT	7e	---	---	---	---	---	---	---	---	---
VcB: VALENT	6e	4e	---	1,800.00	---	100.00	---	15.00	30.00	50.00
VcD: VALENT	6e	4e	---	1,600.00	---	90.00	---	---	28.00	45.00
VeB: VETAL	3e	2e	---	---	---	125.00	---	---	30.00	---
W: WATER	---	---	---	---	---	---	---	---	---	---
Wa: WANN	2w	2w	---	---	---	135.00	---	---	27.00	---
WoB: WOODLY	3e	3e	---	1,900.00	---	125.00	---	18.00	30.00	---

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Dry pinto beans		Corn		Sugar beets		Winter wheat	
	N	I	N	I	N	I	N	I	N	I
			Lbs		Bu		Tons		Bu	
WpB:										
WOODLY----------	2e	2e	---	2,100.00	---	130.00	---	21.00	30.00	---

Farmland Classification
Chase County, Nebraska : Published

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

The map units in the survey area that are considered prime farmland are listed in the following table. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in the "Acres and Proportionate Extent of Soils" table. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described in other tables in this document."

Map symbol	Mapunit name	Farmland Classification
Gf	Gibbon silt loam, 0 to 2 percent slopes	Prime farmland if drained
Wa	Wann fine sandy loam, 0 to 2 percent slopes	Prime farmland if drained
Ac	Alliance silt loam, 0 to 1 percent slopes	Prime farmland if irrigated
Af	Altvan loam, 0 to 1 percent slopes	Prime farmland if irrigated
AfB	Altvan loam, 1 to 3 percent slopes	Prime farmland if irrigated
AfC	Altvan loam, 3 to 6 percent slopes	Prime farmland if irrigated
AsB	Ascalon fine sandy loam, 1 to 3 percent slopes	Prime farmland if irrigated
AsC	Ascalon fine sandy loam, 3 to 6 percent slopes	Prime farmland if irrigated
Bg	Bridget silt loam, 0 to 1 percent slopes	Prime farmland if irrigated
BgB	Bridget silt loam, 1 to 3 percent slopes	Prime farmland if irrigated
BuC	Bushman very fine sandy loam, 1 to 4 percent slopes	Prime farmland if irrigated
Cb	Caruso loam, 0 to 2 percent slopes	Prime farmland if irrigated
CrB	Creighton very fine sandy loam, 1 to 3 percent slopes	Prime farmland if irrigated
CrC	Creighton very fine sandy loam, 3 to 6 percent slopes	Prime farmland if irrigated
Gh	Goshen silt loam, 0 to 1 percent slopes	Prime farmland if irrigated
HdB	Haxtun fine sandy loam, 0 to 3 percent slopes	Prime farmland if irrigated
JcB	Jayem fine sandy loam, 0 to 3 percent slopes	Prime farmland if irrigated
JcC	Jayem fine sandy loam, 3 to 6 percent slopes	Prime farmland if irrigated
KeB	Keith silt loam, 1 to 3 percent slopes	Prime farmland if irrigated
KeC2	Keith silt loam, 3 to 6 percent slopes, eroded	Prime farmland if irrigated
Ku	Kuma silt loam, 0 to 1 percent slopes	Prime farmland if irrigated
KuB	Kuma silt loam, 1 to 3 percent slopes	Prime farmland if irrigated
KuC	Kuma silt loam, 3 to 6 percent slopes	Prime farmland if irrigated
Ma	Mace silt loam, 0 to 1 percent slopes	Prime farmland if irrigated
MaB	Mace silt loam, 1 to 3 percent slopes	Prime farmland if irrigated
Mc	Mace-alliance silt loams, 0 to 1 percent slopes	Prime farmland if irrigated
McB	Mace-alliance silt loams, 1 to 3 percent slopes	Prime farmland if irrigated
Mm	Mccash very fine sandy loam, 0 to 1 percent slopes	Prime farmland if irrigated
Mo	Mccook silt loam, 0 to 1 percent slopes	Prime farmland if irrigated
Mp	Mccook silt loam, occasionally flooded, 0 to 2 percent slopes	Prime farmland if irrigated
Rs	Rosebud loam, 0 to 1 percent slopes	Prime farmland if irrigated
RsB	Rosebud loam, 1 to 3 percent slopes	Prime farmland if irrigated
SbB	Satanta very fine sandy loam, 1 to 3 percent slopes	Prime farmland if irrigated
SbC	Satanta very fine sandy loam, 3 to 6 percent slopes	Prime farmland if irrigated
UsC2	Ulysses silt loam, 3 to 6 percent slopes, eroded	Prime farmland if irrigated
VeB	Vetal fine sandy loam, 0 to 3 percent slopes	Prime farmland if irrigated
WpB	Woodly fine sandy loam, 0 to 3 percent slopes	Prime farmland if irrigated

SOIL RATING FOR PLANT GROWTH, modified 1998
Chase County, Nebraska

The "Soil Rating for Plant Growth, modified 1998" (SRPG) is a relative rating of the capacity of a soil to produce a specific plant under a defined management system. The index is determined from yield data on a few benchmark soils and is used to calculate yields, the net returns from crops, land assessment values, and taxes and to perform risk analysis when land management decisions are made. Specific information on plants and yields can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Map symbol	Soil name	Crop Index
AED	Arents, Earthen Dam	0
Ac	Alliance Silt Loam, 0 To 1 Percent Slopes	61
Af	Altvan Loam, 0 To 1 Percent Slopes	41
AfB	Altvan Loam, 1 To 3 Percent Slopes	40
AfC	Altvan Loam, 3 To 6 Percent Slopes	39
AsB	Ascalon Fine Sandy Loam, 1 To 3 Percent Slopes	48
AsC	Ascalon Fine Sandy Loam, 3 To 6 Percent Slopes	46
BeB	Blanche Very Fine Sandy Loam, 0 To 3 Percent Slopes	41
Bg	Bridget Silt Loam, 0 To 1 Percent Slopes	56
BgB	Bridget Silt Loam, 1 To 3 Percent Slopes	55
BuC	Bushman Very Fine Sandy Loam, 1 To 4 Percent Slopes	36
Cb	Caruso Loam, 0 To 2 Percent Slopes	39
ChD	Colby Silt Loam, 6 To 9 Percent Slopes	39
ChF	Colby Silt Loam, 9 To 30 Percent Slopes	25
ChG	Colby Silt Loam, 30 To 60 Percent Slopes	2
CrB	Creighton Very Fine Sandy Loam, 1 To 3 Percent Slopes	52
CrC	Creighton Very Fine Sandy Loam, 3 To 6 Percent Slopes	50
CrD	Creighton Very Fine Sandy Loam, 6 To 11 Percent Slopes	47
DbB	Dailey Loamy Sand, 0 To 3 Percent Slopes	20
DuC	Duda-Tassel Loamy Sands, 3 To 6 Percent Slopes	17
Fu	Fluvaquents, Silty	2
Gb	Gannett Silt Loam, Overwash, 0 To 2 Percent Slopes	25
Gf	Gibbon Silt Loam, 0 To 2 Percent Slopes	45
Gh	Goshen Silt Loam, 0 To 1 Percent Slopes	60
HaB	Haxtun Loamy Fine Sand, 0 To 3 Percent Slopes	52
HdB	Haxtun Fine Sandy Loam, 0 To 3 Percent Slopes	56
INT	Aquolls	12
JaB	Jayem Loamy Fine Sand, 0 To 3 Percent Slopes	43
JaC	Jayem Loamy Fine Sand, 3 To 6 Percent Slopes	41
JcB	Jayem Fine Sandy Loam, 0 To 3 Percent Slopes	45
JcC	Jayem Fine Sandy Loam, 3 To 6 Percent Slopes	44
KeB	Keith Silt Loam, 1 To 3 Percent Slopes	64
KeC2	Keith Silt Loam, 3 To 6 Percent Slopes, Eroded	62
Ku	Kuma Silt Loam, 0 To 1 Percent Slopes	58
KuB	Kuma Silt Loam, 1 To 3 Percent Slopes	57
KuC	Kuma Silt Loam, 3 To 6 Percent Slopes	56
LD	Sanitary Landfill	0
LaB	Laird Fine Sandy Loam, 0 To 3 Percent Slopes	7
M-W	Miscellaneous Water, Sewage Lagoons	0
Ma	Mace Silt Loam, 0 To 1 Percent Slopes	41
MaB	Mace Silt Loam, 1 To 3 Percent Slopes	35
Mc	Mace-Alliance Silt Loams, 0 To 1 Percent Slopes	48
McB	Mace-Alliance Silt Loams, 1 To 3 Percent Slopes	47
Mm	Mccash Very Fine Sandy Loam, 0 To 1 Percent Slopes	63
Mo	Mccook Silt Loam, 0 To 1 Percent Slopes	52
Mp	Mccook Silt Loam, Occasionally Flooded, 0 To 2 Percent Slopes	51
MtB	Mccook Silt Loam, Channeled, 0 To 3 Percent Slopes	40
OaF	Otero-Canyon Loams, 6 To 20 Percent Slopes	27
OaG	Otero-Canyon Loams, 20 To 45 Percent Slopes	2
Rs	Rosebud Loam, 0 To 1 Percent Slopes	33
RsB	Rosebud Loam, 1 To 3 Percent Slopes	32
Rt	Rosebud-Canyon Loams, 0 To 1 Percent Slopes	23
RtB	Rosebud-Canyon Loams, 0 To 3 Percent Slopes	23
RtC	Rosebud-Canyon Loams, 3 To 6 Percent Slopes	22
RtD2	Rosebud-Canyon Loams, 6 To 11 Percent Slopes, Eroded	19
SaC	Sarben Loamy Very Fine Sand, 3 To 6 Percent Slopes	47
SaD	Sarben Loamy Very Fine Sand, 6 To 9 Percent Slopes	45
SbB	Satanta Very Fine Sandy Loam, 1 To 3 Percent Slopes	55
SbC	Satanta Very Fine Sandy Loam, 3 To 6 Percent Slopes	53
Sc	Scott Silt Loam, 0 To 1 Percent Slopes	28
TaB	Tassel-Duda Loamy Sands, 0 To 3 Percent Slopes	13
TaF	Tassel-Duda Loamy Sands, 3 To 30 Percent Slopes	8
UsC2	Ulysses Silt Loam, 3 To 6 Percent Slopes, Eroded	49
UsD2	Ulysses Silt Loam, 6 To 9 Percent Slopes, Eroded	47
VaF	Valent Sand, Rolling	15
VaG	Valent Sand, Rolling And Hilly	9
VcB	Valent Loamy Sand, 0 To 3 Percent Slopes	20
VcD	Valent Loamy Sand, 3 To 9 Percent Slopes	19
VeB	Vetal Fine Sandy Loam, 0 To 3 Percent Slopes	52
W	Water	0
Wa	Wann Fine Sandy Loam, 0 To 2 Percent Slopes	35
WoB	Woodly Loamy Fine Sand, 0 To 3 Percent Slopes	52
WpB	Woodly Fine Sandy Loam, 0 To 3 Percent Slopes	59

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro-logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
								K	Kf	T		
AED:ARENTS, EARTHEN DAM----	100	N/A	8	Not prime farmland		Unspecified		---	---	-	---	---
Ac:ALLIANCE-----	97	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	4	5	56
Af:ALTVAN-------	97	2s-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.28	.28	4	5	56
AfB:ALTVAN------	97	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.28	.28	4	5	56
AfC:ALTVAN------	97	4e-	4e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.28	.28	4	5	56
AsB:ASCALON-----	97	2e-	2e	Prime farmland if irrigated	B	Sandy - Veg. Zone 2		.20	.20	5	3	86
AsC:ASCALON-----	97	3e-	3e	Prime farmland if irrigated	B	Sandy - Veg. Zone 2		.20	.20	5	3	86
BeB:BLANCHE-----	97	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 2		.32	.32	3	3	86
Bg:BRIDGET------	100	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
BgB:BRIDGET-----	100	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
BuC:BUSHMAN-----	100	2e-	3e	Prime farmland if irrigated	B	Limy Upland - Veg. Zone 2		.32	.32	5	3	86
Cb:CARUSO-------	97	2w-	2w	Prime farmland if irrigated	C	Saline Subirrigated - Veg. Zone 2		.28	.28	5	4L	86
ChD:SULCO-------	97	4e-	4e	Not prime farmland	B	Limy Upland - Veg. Zone 2		.43	.43	5	4L	86
ChF:SULCO-------	100	N/A	6e	Not prime farmland	B	Limy Upland - Veg. Zone 2		.43	.43	5	4L	86
ChG:SULCO-------	100	N/A	7e	Not prime farmland	B	Thin Loess - Veg. Zone 2		.43	.43	5	4L	86
CrB:CREIGHTON---	97	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	3	86
CrC:CREIGHTON---	97	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	3	86

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro-logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
								K	Kf	T		
CrD:CREIGHTON---	100	4e-	4e	Not prime farmland	B	Silty - Veg. Zone 2		.32	.32	5	3	86
DbB:DAILEY------	97	4e-	4e	Not prime farmland	A	Sandy - Veg. Zone 2		.17	.17	5	2	134
DuC:DUDA--------	62	4e-	6e	Not prime farmland	A	Sandy - Veg. Zone 2		.17	.17	3	2	134
DuC:TASSEL------	35	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.17	.17	2	2	134
Fu:FLUVAQUENTS--	100	N/A	8w	Not prime farmland	D	Unspecified		.28	.28	5	8	0
Gb:GANNETT------	100	N/A	5w	Not prime farmland	D	Wet Land - Veg. Zone 2		.28	.28	4	8	0
Gf:GIBBON-------	95	2w-	2w	Prime farmland if drained	B	Wet Subirrigated - Veg. Zone 2		.32	.32	5	4L	86
Gh:GOSHEN-------	97	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
HaB:HAXTUN------	97	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 2		.17	.17	5	2	134
HdB:HAXTUN------	97	2e-	2e	Prime farmland if irrigated	B	Sandy - Veg. Zone 2		.20	.20	5	3	86
INT:AQUOLLS-----	100	N/A	5w	Not prime farmland	C	Unspecified		---	---	-	---	0
JaB:JAYEM-------	97	3e-	4e	Not prime farmland	B	Sandy - Veg. Zone 2		.17	.17	5	2	134
JaC:JAYEM-------	97	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 2		.17	.17	5	2	134
JcB:JAYEM-------	97	2e-	3e	Prime farmland if irrigated	B	Sandy - Veg. Zone 2		.20	.20	5	3	86
JcC:JAYEM-------	100	3e-	4e	Prime farmland if irrigated	B	Sandy - Veg. Zone 2		.20	.20	5	3	86
KeB:KEITH-------	97	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
KeC2:KEITH------	97	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
Ku:KUMA---------	97	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro-logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
								K	Kf	T		
KuB:KUMA--------	97	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
KuC:KUMA--------	100	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
LD:----------		N/A	N/A	Not prime farmland		Unspecified		---	---	-	---	---
LaB:LAIRD-------	97	4s-	4s	Not prime farmland	B	Saline Lowland - Veg. Zone 2		.20	.20	4	3	86
M-W:MISCELLANEOUS WATER----------	100	N/A	N/A	Not prime farmland		Unspecified		---	---	-	---	---
Ma:MACE---------	97	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	3	5	56
MaB:MACE--------	100	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	3	5	56
Mc:MACE---------	62	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	3	5	56
Mc:ALLIANCE-----	35	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	4	5	56
McB:MACE--------	62	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	3	5	56
McB:ALLIANCE----	35	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	4	5	56
Mm:MCCASH-------	97	2e-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	3	86
Mo:MCCOOK-------	100	1-	2c	Prime farmland if irrigated	B	Silty Lowland - Veg. Zone 2		.32	.32	5	4L	86
Mp:MCCOOK-------	100	2w-	2w	Prime farmland if irrigated	B	Silty Lowland - Veg. Zone 2		.32	.32	5	4L	86
MtB:MCCOOK------	100	N/A	6w	Not prime farmland	B	Silty Overflow - Veg. Zone 2		.32	.32	5	4L	86
OaF:OTERO-------	70	N/A	6e	Not prime farmland	B	Sandy - Veg. Zone 2		.32	.32	5	4L	86
OaF:CANYON------	30	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.32	.32	2	4L	86

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro-logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
								K	Kf	T		
OaG:SULCO-------	60	N/A	7e	Not prime farmland	B	Limy Upland - Veg. Zone 2		.37	.37	5	4L	86
OaG:CANYON------	40	N/A	7s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.32	.32	2	4L	86
Rs:ROSEBUD------	97	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.28	.28	3	5	56
RsB:ROSEBUD-----	97	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.28	.28	3	5	56
Rt:ROSEBUD------	62	1-	2c	Not prime farmland	B	Silty - Veg. Zone 2		.28	.28	3	5	56
Rt:CANYON-------	35	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.32	.32	2	4L	86
RtB:ROSEBUD-----	62	3e-	3e	Not prime farmland	B	Silty - Veg. Zone 2		.28	.28	3	5	56
RtB:CANYON------	35	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.32	.32	2	4L	86
RtC:ROSEBUD-----	62	3e-	4e	Not prime farmland	B	Silty - Veg. Zone 2		.28	.28	3	5	56
RtC:CANYON------	35	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.32	.32	2	4L	86
RtD2:ROSEBUD----	60	4e-	4e	Not prime farmland	B	Silty - Veg. Zone 2		.28	.28	3	5	56
RtD2:CANYON-----	40	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.32	.32	2	4L	86
SaC:SARBEN------	97	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 2		.24	.24	5	2	134
SaD:SARBEN------	97	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 2		.24	.24	5	2	134
SbB:SATANTA-----	97	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	3	86
SbC:SATANTA-----	97	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	3	86
Sc:LODGEPOLE----	100	4w-	3w	Not prime farmland	D	Clayey Overflow - Veg. Zone 2		.37	.37	5	6	48
TaB:TASSEL------	62	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.17	.17	2	2	134
TaB:DUDA--------	35	4e-	4e	Not prime farmland	A	Sandy - Veg. Zone 2		.17	.17	3	2	134

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro-logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi-bility group	Wind erodi-bility index
								K	Kf	T		
TaF:TASSEL------	62	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 2		.17	.17	2	2	134
TaF:DUDA--------	35	N/A	6e	Not prime farmland	A	Sandy - Veg. Zone 2		.17	.17	3	2	134
UsC2:ULYSSES----	97	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 2		.32	.32	5	5	56
UsD2:ULYSSES----	100	4e-	4e	Not prime farmland	B	Silty - Veg. Zone 2		.32	.32	5	5	56
VaF:VALENT------	97	N/A	6e	Not prime farmland	A	Sands - Veg. Zone 2		.15	.15	5	1	250
VaG:VALENT------	65	N/A	6e	Not prime farmland	A	Sands - Veg. Zone 2		.15	.15	5	1	250
	35	N/A	7e	Not prime farmland	A	Choppy Sands - Veg. Zone 2		.15	.15	5	1	250
VcB:VALENT------	97	4e-	6e	Not prime farmland	A	Sandy - Veg. Zone 2		.17	.17	5	2	134
VcD:VALENT------	97	4e-	6e	Not prime farmland	A	Sands - Veg. Zone 2		.17	.17	5	2	134
VeB:VETAL-------	97	2e-	3e	Prime farmland if irrigated	B	Sandy - Veg. Zone 2		.20	.20	5	3	86
W:WATER---------	100	N/A	N/A	Not prime farmland		Unspecified		---	---	-	---	0
Wa:WANN---------	97	2w-	2w	Prime farmland if drained	B	Subirrigated - Veg. Zone 2		.20	.20	5	3	86
WoB:WOODLY------	97	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 2		.17	.17	5	2	134
WpB:WOODLY------	97	2e-	2e	Prime farmland if irrigated	B	Sandy - Veg. Zone 2		.20	.20	5	3	86

RANGELAND PRODUCTIVITY
Chase County, Nebraska

Use and Explanation of Rangeland, Grazed Forest Land, Native Pastureland Interpretations

Information in this subsection can be used to plan the use and management of soils for rangeland, grazed forest land, and native pasture. Different kinds of soils vary in their capacity to produce native grasses and other plants suitable for grazing. Information in this subsection provides groupings of similar soils and estimates of potential forage production, which can be used to determine livestock stocking rates.

Rangeland. Range is land on which the native vegetation (climax or natural potential plant community) is predominantly grasses, grasslike plants, forbs, and shrubs suitable for grazing and browsing. Range includes natural grasslands, savannas, many wetlands, some deserts, tundra, and certain shrub and forb communities. Rangeland receives no regular or frequent cultural treatment. The composition and production of the plant community are determined by soil, climate, topography, overstory canopy, and grazing management.

Grazed Forest Land. Includes land on which the understory includes, as an integral part of the forest plant community, plants that can be grazed without significantly impairing other forest values.

Native Pasture. Includes land on which the native vegetation (climax or natural potential plant community) is forest but which is used and managed primarily for production of native plants for forage. Native pasture includes cut-over forest land and forest land cleared and now managed for native or naturalized forage plants.

Rangeland

In areas that have similar climate and topography, differences in the kind and amount of vegetation produced on rangeland are closely related to the kind of soil. Effective management based on the relationship between the soils and vegetation and water.

The Rangeland, Grazed Forest land, Native Pastureland Interpretations shows, for each soil that supports rangeland vegetation, the ecological site and the potential annual production of vegetation in favorable, normal, unfavorable years. An explanation of the column headings in this table follows.

An ecological site is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time throughout the soil development process; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The hydrology of a site is influenced by development of the soil and plant community. The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service.

Total dry-weight production is the amount of vegetation that can be expected to grow annually on well managed rangeland that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation for favorable, average, and unfavorable years. In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are about average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Yields are adjusted to a common percent of air-dry moisture content.

Range management requires a knowledge of the kinds of soil and of the potential natural plant community. It also requires an evaluation of the present range similarity index and rangeland trend. Range similarity index is determined by comparing the present plant community with the potential natural plant community on a particular rangeland ecological site. The more closely the existing community resembles the potential community, the higher the range similarity index. Rangeland trend is defined as the direction of change in an existing plant community relative to the potential natural plant community. Further information about the range similarity index and rangeland trend is available in chapter 4 of the National Range and Pasture Handbook, which is available in local offices of the Natural Resources Conservation Service. The objective in range management is to control grazing so that the plants growing on a site are about the same in kind and amount as the potential natural plant community for that site. Such management generally results in the optimum production of vegetation, control of undesirable brush species, conservation of water, and control of erosion. Sometimes, however, an area with a range similarity index somewhat below the potential meets grazing needs, provides wildlife habitat, and protects soil and water resources.

RANGELAND PRODUCTIVITY--Continued
Chase County, Nebraska

(Only the soils that support rangeland vegetation suitable for grazing are rated.) Refer to range site description to determine the percentage allowable of grasses, forbs, and shrubs for the range ecological site.

Map symbol and soil name	Ecological site	Total dry-weight production		
		Favorable year	Average year	Unfavorable year
		Lb/acre	Lb/acre	Lb/acre
Ac:				
Alliance	Silty - Veg. Zone 2	3,300	2,500	1,700
AED:				
Arents, Earthen Dam	---	---	---	---
Af:				
Altvan	Silty - Veg. Zone 2	2,900	2,500	2,100
AfB:				
Altvan	Silty - Veg. Zone 2	2,900	2,500	2,100
AfC:				
Altvan	Silty - Veg. Zone 2	2,900	2,500	2,100
AsB:				
Ascalon	Sandy - Veg. Zone 2	2,300	1,700	900
AsC:				
Ascalon	Sandy - Veg. Zone 2	2,300	1,700	900
BeB:				
Blanche	Sandy - Veg. Zone 2	2,600	2,300	1,900
Bg:				
Bridget	Silty - Veg. Zone 2	3,300	2,500	1,700
BgB:				
Bridget	Silty - Veg. Zone 2	3,300	2,500	1,700
BuC:				
Bushman	Limy Upland - Veg. Zone 2	2,400	2,000	1,700
Cb:				
Caruso	Saline Subirrigated - Veg. Zone 2	3,800	3,000	2,200
ChD:				
Sulco	Limy Upland - Veg. Zone 2	2,800	2,000	1,500
ChF:				
Sulco	Limy Upland - Veg. Zone 2	2,800	2,000	1,500
ChG:				
Sulco	Thin Loess - Veg. Zone 2	2,300	1,600	1,000
CrB:				
Creighton	Silty - Veg. Zone 2	3,300	2,500	1,700
CrC:				
Creighton	Silty - Veg. Zone 2	3,300	2,500	1,700
CrD:				
Creighton	Silty - Veg. Zone 2	3,300	2,500	1,700
DbB:				
Dailey	Sandy - Veg. Zone 2	3,000	2,300	1,700
DuC:				
Duda	Sandy - Veg. Zone 2	3,500	2,900	2,200
Tassel	Shallow Limy - Veg. Zone 2	1,500	1,100	700
Fu:				
Fluvaquents	---	---	---	---
Gb:				
Gannett, OVERWASH	Wet Land - Veg. Zone 2	5,500	5,300	5,200
Gf:				
Gibbon	Wet Subirrigated - Veg. Zone 2	5,500	5,300	5,000
Gh:				
Goshen	Silty - Veg. Zone 2	3,300	2,900	2,500
HaB:				
Haxtun	Sandy - Veg. Zone 2	2,500	2,000	1,250
HdB:				
Haxtun	Sandy - Veg. Zone 2	2,500	2,000	1,250
INT:				
Aquolls	---	---	---	---
JaB:				
Jayem	Sandy - Veg. Zone 2	3,000	2,300	1,600
JaC:				
Jayem	Sandy - Veg. Zone 2	3,000	2,300	1,600
JcB:				
Jayem	Sandy - Veg. Zone 2	3,000	2,300	1,600
JcC:				
Jayem	Sandy - Veg. Zone 2	3,000	2,300	1,600
KeB:				
Keith	Silty - Veg. Zone 2	3,300	2,500	1,700
KeC2:				
Keith	Silty - Veg. Zone 2	3,300	2,500	1,700
Ku:				
Kuma	Silty - Veg. Zone 2	3,300	2,900	2,500
KuB:				
Kuma	Silty - Veg. Zone 2	3,300	2,900	2,500
KuC:				
Kuma	Silty - Veg. Zone 2	3,300	2,900	2,500
LaB:				
Laird	Saline Lowland - Veg. Zone 2	2,000	1,800	1,500
LD:				
	---	---	---	---
M-W:				
Miscellaneous Water	---	---	---	---
Ma:				
Mace	Silty - Veg. Zone 2	2,900	2,500	2,100
MaB:				
Mace	Silty - Veg. Zone 2	2,900	2,500	2,100
Mc:				

RANGELAND PRODUCTIVITY--Continued
Chase County, Nebraska

(Only the soils that support rangeland vegetation suitable for grazing are rated.) Refer to range site description to determine the percentage allowable of grasses, forbs, and shrubs for the range ecological site.

Map symbol and soil name	Ecological site	Total dry-weight production		
		Favorable year	Average year	Unfavorable year
		Lb/acre	Lb/acre	Lb/acre
Mace	Silty - Veg. Zone 2	2,900	2,500	2,100
Alliance	Silty - Veg. Zone 2	3,300	2,500	1,700
McB:				
Mace	Silty - Veg. Zone 2	2,900	2,500	2,100
Alliance	Silty - Veg. Zone 2	3,300	2,500	1,700
Mm:				
Mccash	Silty - Veg. Zone 2	3,300	2,900	2,500
Mo:				
Mccook	Silty Lowland - Veg. Zone 2	3,800	2,800	2,300
Mp:				
Mccook	Silty Lowland - Veg. Zone 2	3,800	3,300	2,800
MtB:				
Mccook	Silty Overflow - Veg. Zone 2	3,000	2,800	2,500
OaF:				
Otero	Sandy - Veg. Zone 2	3,000	2,300	1,600
Canyon	Shallow Limy - Veg. Zone 2	1,500	1,100	700
OaG:				
Sulco	Limy Upland - Veg. Zone 2	2,300	1,600	1,000
Canyon	Shallow Limy - Veg. Zone 2	1,500	1,100	700
Rs:				
Rosebud	Silty - Veg. Zone 2	3,300	2,500	1,700
RsB:				
Rosebud	Silty - Veg. Zone 2	3,300	2,500	1,700
Rt:				
Rosebud	Silty - Veg. Zone 2	3,300	2,500	1,700
Canyon	Shallow Limy - Veg. Zone 2	1,500	1,100	700
RtB:				
Rosebud	Silty - Veg. Zone 2	3,300	2,500	1,700
Canyon	Shallow Limy - Veg. Zone 2	1,500	1,100	700
RtC:				
Rosebud	Silty - Veg. Zone 2	3,300	2,500	1,700
Canyon	Shallow Limy - Veg. Zone 2	1,500	1,100	700
RtD2:				
Rosebud	Silty - Veg. Zone 2	3,300	2,500	1,700
Canyon	Shallow Limy - Veg. Zone 2	1,500	1,100	700
SaC:				
Sarben	Sandy - Veg. Zone 2	3,000	2,600	2,200
SaD:				
Sarben	Sandy - Veg. Zone 2	3,000	2,600	2,200
SbB:				
Satanta	Silty - Veg. Zone 2	3,200	2,500	1,800
SbC:				
Satanta	Silty - Veg. Zone 2	3,200	2,500	1,800
Sc:				
Lodgepole	Clayey Overflow - Veg. Zone 2	1,200	1,000	700
TaB:				
Tassel	Shallow Limy - Veg. Zone 2	1,500	1,100	700
Duda	Sandy - Veg. Zone 2	3,500	2,900	2,200
TaF:				
Tassel	Shallow Limy - Veg. Zone 2	1,500	1,100	700
Duda	Sandy - Veg. Zone 2	3,500	2,900	2,200
UsC2:				
Ulysses	Silty - Veg. Zone 2	3,300	2,500	1,700
UsD2:				
Ulysses	Silty - Veg. Zone 2	3,300	2,500	1,700
VaF:				
Valent	Sands - Veg. Zone 2	3,000	2,600	2,000
VaG:				
Valent	Sands - Veg. Zone 2	3,000	2,600	2,000
Valent	Choppy Sands - Veg. Zone 2	2,800	2,400	1,800
VcB:				
Valent	Sandy - Veg. Zone 2	2,600	2,300	1,900
VcD:				
Valent	Sands - Veg. Zone 2	3,000	2,600	2,000
VeB:				
Vetal	Sandy - Veg. Zone 2	3,000	2,300	1,700
W:				
Water	---	---	---	---
Wa:				
Wann	Subirrigated - Veg. Zone 2	5,000	4,800	4,500
WoB:				
Woodly	Sandy - Veg. Zone 2	3,000	2,300	1,600
WpB:				
Woodly	Sandy - Veg. Zone 2	3,000	2,300	1,600

BUILDING SITE DEVELOPMENT
Chase County, Nebraska

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. These tables show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:							
Alliance	97	Not limited		Not limited		Not limited	
AED:							
Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Af:							
Altvan	97	Not limited		Not limited		Not limited	
AfB:							
Altvan	97	Not limited		Not limited		Not limited	
AfC:							
Altvan	97	Not limited		Not limited		Somewhat limited Slope	0.12
AsB:							
Ascalon	97	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell	0.50
AsC:							
Ascalon	97	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell Slope	0.50 0.12
BeB:							
Blanche	97	Not limited		Somewhat limited Depth to soft bedrock	0.15	Not limited	
Bg:							
Bridget	100	Not limited		Not limited		Not limited	
BgB:							
Bridget	100	Not limited		Not limited		Not limited	
BuC:							
Bushman	100	Not limited		Not limited		Not limited	
Cb:							
Caruso	97	Very limited Flooding	1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding	1.00
ChD:							
Sulco	97	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
ChF:							
Sulco	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
ChG:							
Sulco	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
CrB:							
Creighton	97	Not limited		Not limited		Not limited	
CrC:							
Creighton	97	Not limited		Not limited		Somewhat limited Slope	0.12
CrD:							
Creighton	100	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Slope	1.00
DbB:							
Dailey	97	Not limited		Not limited		Not limited	
DuC:							
Duda	62	Not limited		Somewhat limited Depth to soft bedrock	0.64	Somewhat limited Slope	0.12
Tassel	35	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock Slope	1.00 0.12
Fu:							
Fluvaquents	100	Very limited Ponding Flooding Depth to saturated zone	1.00 1.00 1.00	Very limited Ponding Flooding Depth to saturated zone	1.00 1.00 1.00	Very limited Ponding Flooding Depth to saturated zone	1.00 1.00 1.00
Gb:							
Gannett, OVERWASH---	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Gf:							
Gibbon	95	Very limited Flooding Depth to saturated zone	1.00 0.07	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.07

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Gh:							
Goshen	97	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
		Shrink-swell	0.50			Shrink-swell	0.50
HaB:							
Haxtun	97	Not limited		Somewhat limited		Not limited	
				Shrink-swell	0.50		
HdB:							
Haxtun	97	Not limited		Not limited		Not limited	
INT:							
Aquolls	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
JaB:							
Jayem	97	Not limited		Not limited		Not limited	
JaC:							
Jayem	97	Not limited		Not limited		Somewhat limited	
						Slope	0.12
JcB:							
Jayem	97	Not limited		Not limited		Not limited	
JcC:							
Jayem	100	Not limited		Not limited		Somewhat limited	
						Slope	0.12
KeB:							
Keith	97	Not limited		Not limited		Not limited	
KeC2:							
Keith	97	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Ku:							
Kuma	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
KuB:							
Kuma	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
KuC:							
Kuma	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
						Slope	0.12
LaB:							
Laird	97	Not limited		Not limited		Not limited	
M-W:							
Miscellaneous Water-	100	Not rated		Not rated		Not rated	
Ma:							
Mace	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
				Depth to soft bedrock	0.42		
MaB:							
Mace	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to soft bedrock	0.64	Shrink-swell	0.50
				Shrink-swell	0.50		
Mc:							
Mace	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
				Depth to soft bedrock	0.42		
Alliance	35	Not limited		Not limited		Not limited	
McB:							
Mace	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Shrink-swell	0.50	Shrink-swell	0.50
				Depth to soft bedrock	0.42		
Alliance	35	Not limited		Not limited		Not limited	
Mm:							
Mccash	97	Not limited		Not limited		Not limited	
Mo:							
Mccook	100	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
Mp:							
Mccook	100	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
MtB:							
Mccook	100	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OaF:							
Otero	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.84	Slope	0.84	Slope	1.00
Canyon	30	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.84	Slope	0.84	Slope	1.00
OaG:							
Sulco	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Canyon	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Rs:							
Rosebud	97	Not limited		Somewhat limited		Not limited	
				Depth to soft bedrock	0.42		
RsB:							
Rosebud	97	Not limited		Somewhat limited		Not limited	
				Depth to soft bedrock	0.42		
Rt:							
Rosebud	62	Not limited		Somewhat limited		Not limited	
				Depth to soft bedrock	0.42		
Canyon	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
RtB:							
Rosebud	62	Not limited		Somewhat limited		Not limited	
				Depth to soft bedrock	0.42		
Canyon	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
RtC:							
Rosebud	62	Not limited		Somewhat limited		Somewhat limited	
				Depth to soft bedrock	0.42	Slope	0.12
Canyon	35	Somewhat limited		Very limited		Somewhat limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
						Slope	0.12
RtD2:							
Rosebud	60	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Depth to soft bedrock	0.42	Slope	1.00
				Slope	0.04		
Canyon	40	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
SaC:							
Sarben	97	Not limited		Not limited		Somewhat limited	
						Slope	0.12
SaD:							
Sarben	97	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.00	Slope	0.00	Slope	1.00
SbB:							
Satanta	97	Not limited		Not limited		Not limited	
SbC:							
Satanta	97	Not limited		Not limited		Somewhat limited	
						Slope	0.12
Sc:							
Lodgepole	100	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Shrink-swell	1.00			Shrink-swell	1.00
TaB:							
Tassel	62	Somewhat limited		Very limited		Somewhat limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to soft bedrock	1.00
Duda	35	Not limited		Somewhat limited		Not limited	
				Depth to soft bedrock	0.42		

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TaF:							
Tassel	62	Very limited Depth to soft bedrock Slope	 1.00 1.00	Very limited Depth to soft bedrock Slope	 1.00 1.00	Very limited Depth to soft bedrock Slope	 1.00 1.00
Duda	35	Very limited Slope	 1.00	Very limited Slope Depth to soft bedrock	 1.00 0.42	Very limited Slope	 1.00
UsC2:							
Ulysses	97	Not limited		Not limited		Somewhat limited Slope	 0.12
UsD2:							
Ulysses	100	Somewhat limited Slope	 0.00	Somewhat limited Slope	 0.00	Very limited Slope	 1.00
VaF:							
Valent	97	Somewhat limited Slope	 0.84	Somewhat limited Slope	 0.84	Very limited Slope	 1.00
VaG:							
Valent	65	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
Valent	35	Very limited Slope	 1.00	Very limited Slope	 1.00	Very limited Slope	 1.00
VcB:							
Valent	97	Not limited		Not limited		Not limited	
VcD:							
Valent	97	Not limited		Not limited		Somewhat limited Slope	 0.48
VeB:							
Vetal	97	Not limited		Not limited		Not limited	
W:							
Water	100	Not rated		Not rated		Not rated	
Wa:							
Wann	97	Very limited Flooding	 1.00	Very limited Flooding Depth to saturated zone	 1.00 1.00	Very limited Flooding	 1.00
WoB:							
Woodly	97	Not limited		Not limited		Not limited	
WpB:							
Woodly	97	Not limited		Not limited		Not limited	

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:							
Alliance	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
AED:							
Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Af:							
Altvan	97	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
AfB:							
Altvan	97	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
AfC:							
Altvan	97	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
AsB:							
Ascalon	97	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
AsC:							
Ascalon	97	Somewhat limited		Very limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	1.00		
		Frost action	0.50				
BeB:							
Blanche	97	Not limited		Somewhat limited		Somewhat limited	
				Depth to soft bedrock	0.15	Depth to bedrock	0.16
				Cutbanks cave	0.10		
Bg:							
Bridget	100	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
BgB:							
Bridget	100	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
BuC:							
Bushman	100	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
Cb:							
Caruso	97	Very limited		Very limited		Very limited	
		Flooding	1.00	Depth to saturated zone	1.00	Salinity	1.00
		Frost action	0.50	Flooding	0.60	Flooding	0.60
				Cutbanks cave	0.10		
ChD:							
Sulco	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.00	Cutbanks cave	0.10	Slope	0.00
				Slope	0.00		
ChF:							
Sulco	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
ChG:							
Sulco	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
CrB:							
Creighton	97	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
CrC:							
Creighton	97	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
CrD:							
Creighton	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.04	Cutbanks cave	0.10	Slope	0.04
				Slope	0.04		
DbB:							
Dailey	97	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.54
				Depth to dense layer	0.50		

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DuC:							
Duda	62	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.76
				Depth to soft bedrock	0.64	Depth to bedrock	0.65
Tassel	35	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
				Cutbanks cave	0.10	Droughty	0.97
Fu:							
Fluvaquents	100	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Flooding	1.00	Flooding	0.80	Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	1.00
Gb:							
Gannett, OVERWASH	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
Gf:							
Gibbon	95	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Depth to saturated zone	1.00	Flooding	0.60
		Flooding	1.00	Flooding	0.60	Depth to saturated zone	0.03
		Depth to saturated zone	0.03	Cutbanks cave	0.10		
Gh:							
Goshen	97	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
		Flooding	0.40				
HaB:							
Haxtun	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
HdB:							
Haxtun	97	Somewhat limited		Very limited		Not limited	
		Frost action	0.50	Cutbanks cave	1.00		
INT:							
Aquolls	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
				Cutbanks cave	0.10		
JaB:							
Jayem	97	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
JaC:							
Jayem	97	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
JcB:							
Jayem	97	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
JcC:							
Jayem	100	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
KeB:							
Keith	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
KeC2:							
Keith	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
Ku:							
Kuma	97	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
KuB:							
Kuma	97	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
KuC:							
Kuma	100	Somewhat limited		Somewhat limited		Not limited	
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LaB:							
Laird	97	Somewhat limited		Somewhat limited		Very limited	
		Frost action	0.50	Cutbanks cave	0.10	Salinity	1.00
M-W:							
Miscellaneous Water	100	Not rated		Not rated		Not rated	
Ma:							
Mace	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
		Frost action	0.50	Cutbanks cave	0.10		
MaB:							
Mace	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to soft bedrock	0.64	Depth to bedrock	0.65
		Frost action	0.50	Cutbanks cave	0.10		
Mc:							
Mace	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
		Frost action	0.50	Cutbanks cave	0.10		
Alliance	35	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
McB:							
Mace	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Shrink-swell	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
		Frost action	0.50	Cutbanks cave	0.10		
Alliance	35	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
Mm:							
Mccash	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
Mo:							
Mccook	100	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
		Flooding	0.40				
Mp:							
Mccook	100	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Flooding	0.60	Flooding	0.60
		Frost action	0.50	Cutbanks cave	0.10		
MtB:							
Mccook	100	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.80	Flooding	1.00
		Frost action	0.50	Cutbanks cave	0.10		
OaF:							
Otero	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.84	Slope	0.84	Slope	0.84
				Cutbanks cave	0.10		
Canyon	30	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Slope	0.84	Slope	0.84	Slope	0.84
				Cutbanks cave	0.10	Droughty	0.82
OaG:							
Sulco	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10		
Canyon	40	Very limited		Very limited		Very limited	
		Slope	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	0.10	Droughty	0.82
Rs:							
Rosebud	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
				Cutbanks cave	0.10		
RsB:							
Rosebud	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
				Cutbanks cave	0.10		

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Rt:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
				Cutbanks cave	0.10		
Canyon	35	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
				Cutbanks cave	0.10	Droughty	0.78
RtB:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
				Cutbanks cave	0.10		
Canyon	35	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
				Cutbanks cave	0.10	Droughty	0.78
RtC:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
				Cutbanks cave	0.10		
Canyon	35	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
				Cutbanks cave	0.10	Droughty	0.78
RtD2:							
Rosebud	60	Somewhat limited		Somewhat limited		Somewhat limited	
		Frost action	0.50	Depth to soft bedrock	0.42	Depth to bedrock	0.42
		Slope	0.04	Cutbanks cave	0.10	Slope	0.04
				Slope	0.04		
Canyon	40	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Slope	0.04	Cutbanks cave	0.10	Droughty	0.78
				Slope	0.04	Slope	0.04
SaC:							
Sarben	97	Not limited		Very limited		Not limited	
				Cutbanks cave	1.00		
SaD:							
Sarben	97	Somewhat limited		Very limited		Somewhat limited	
		Slope	0.00	Cutbanks cave	1.00	Slope	0.00
				Slope	0.00		
SbB:							
Satanta	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
SbC:							
Satanta	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
Sc:							
Lodgepole	100	Very limited		Very limited		Very limited	
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Frost action	1.00	Cutbanks cave	0.10		
		Shrink-swell	1.00	Too clayey	0.03		
TaB:							
Tassel	62	Somewhat limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
				Cutbanks cave	0.10	Droughty	1.00
Duda	35	Not limited		Very limited		Somewhat limited	
				Cutbanks cave	1.00	Droughty	0.68
				Depth to soft bedrock	0.42	Depth to bedrock	0.42
TaF:							
Tassel	62	Very limited		Very limited		Very limited	
		Depth to soft bedrock	1.00	Depth to soft bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Droughty	1.00
				Cutbanks cave	0.10	Slope	1.00
Duda	35	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Slope	1.00
				Slope	1.00	Droughty	0.68
				Depth to soft bedrock	0.42	Depth to bedrock	0.42

BUILDING SITE DEVELOPMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
UsC2:							
Ulysses	97	Not limited		Somewhat limited		Not limited	
				Cutbanks cave	0.10		
UsD2:							
Ulysses	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.00	Cutbanks cave	0.10	Slope	0.00
				Slope	0.00		
VaF:							
Valent	97	Somewhat limited		Very limited		Very limited	
		Slope	0.84	Cutbanks cave	1.00	Droughty	1.00
				Slope	0.84	Slope	0.84
						Too sandy	0.50
VaG:							
Valent	65	Very limited		Very limited		Very limited	
		Slope	1.00	Cutbanks cave	1.00	Droughty	1.00
				Slope	1.00	Slope	1.00
						Too sandy	0.50
Valent	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
				Cutbanks cave	1.00	Droughty	1.00
						Too sandy	0.50
VcB:							
Valent	97	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
VcD:							
Valent	97	Not limited		Very limited		Very limited	
				Cutbanks cave	1.00	Droughty	1.00
VeB:							
Vetal	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
W:							
Water	100	Not rated		Not rated		Not rated	
Wa:							
Wann	97	Very limited		Very limited		Somewhat limited	
		Frost action	1.00	Cutbanks cave	1.00	Flooding	0.60
		Flooding	1.00	Depth to saturated zone	1.00		
				Flooding	0.60		
WoB:							
Woodly	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
WpB:							
Woodly	97	Somewhat limited		Somewhat limited		Not limited	
		Frost action	0.50	Cutbanks cave	0.10		

CONSTRUCTION MATERIALS
Chase County, Nebraska

Construction Materials

These tables give information about the soils as potential sources of gravel, sand, topsoil, reclamation material, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

The soils are rated good, fair, or poor as potential sources of topsoil, reclamation material, and roadfill. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of topsoil, reclamation material, or roadfill. The lower the number, the greater the limitation.

The soils are rated as a probable or improbable source of sand and gravel. A rating of probable means that the source material is likely to be in or below the soil. The numerical ratings in these columns indicate the degree of probability. The number 0.00 indicates that the soil is an improbable source. A number between 0.00 and 1.00 indicates the degree to which the soil is a probable source of sand or gravel.

Sand and gravel are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In the first table, only the probability of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the lowest layer of the soil contains sand or gravel, the soil is rated as a probable source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
Ac:					
Alliance	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.05
AED:					
Arents, Earthen Dam-	100	Not rated		Not rated	
Af:					
Altvan	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.95
AfB:					
Altvan	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.95
AfC:					
Altvan	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.95
AsB:					
Ascalon	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.06
AsC:					
Ascalon	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.04
		Thickest layer	0.00	Bottom layer	0.70
BeB:					
Blanche	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.09
Bg:					
Bridget	100	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
BgB:					
Bridget	100	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.06
BuC:					
Bushman	100	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.07
		Thickest layer	0.00	Thickest layer	0.07
Cb:					
Caruso	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ChD:					
Sulco	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ChF:					
Sulco	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
ChG:					
Sulco	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
CrB:					
Creighton	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.07
		Thickest layer	0.00	Thickest layer	0.08

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
CrC:					
Creighton	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.07
		Thickest layer	0.00	Thickest layer	0.08
CrD:					
Creighton	100	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.07
		Thickest layer	0.00	Thickest layer	0.08
DbB:					
Dailey	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.24
		Thickest layer	0.00	Thickest layer	0.24
DuC:					
Duda	62	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.33
Tassel	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Fu:					
Fluvaquents	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Gb:					
Gannett, OVERWASH	100	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.07
Gf:					
Gibbon	95	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.04
Gh:					
Goshen	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
HaB:					
Haxtun	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.03
		Thickest layer	0.00	Thickest layer	0.05
HdB:					
Haxtun	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.19
INT:					
Aquolls	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
JaB:					
Jayem	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.07
		Thickest layer	0.00	Thickest layer	0.07
JaC:					
Jayem	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.07
		Thickest layer	0.00	Thickest layer	0.07
JcB:					
Jayem	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.65
JcC:					
Jayem	100	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.65

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
KeB:					
Keith	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KeC2:					
Keith	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Ku:					
Kuma	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KuB:					
Kuma	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
KuC:					
Kuma	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
LaB:					
Laird	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.08
M-W:					
Miscellaneous Water	100	Not rated		Not rated	
Ma:					
Mace	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
MaB:					
Mace	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Mc:					
Mace	62	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Alliance	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.05
McB:					
Mace	62	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Alliance	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.05
Mm:					
Mccash	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.06
		Thickest layer	0.00	Bottom layer	0.07
Mo:					
Mccook	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Mp:					
Mccook	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
MtB:					
Mccook	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OaF:					
Otero	70	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.09
Canyon	30	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
OaG:					
Sulco	60	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Canyon	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Rs:					
Rosebud	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RsB:					
Rosebud	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.08
Rt:					
Rosebud	62	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.06
Canyon	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RtB:					
Rosebud	62	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.05
Canyon	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RtC:					
Rosebud	62	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.08
Canyon	35	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
RtD2:					
Rosebud	60	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.08
Canyon	40	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
SaC:					
Sarben	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.19
		Thickest layer	0.00	Thickest layer	0.19
SaD:					
Sarben	97	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.19
		Thickest layer	0.00	Thickest layer	0.19

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
SbB:					
Satanta	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.08
SbC:					
Satanta	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.00
		Thickest layer	0.00	Bottom layer	0.08
Sc:					
Lodgepole	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
TaB:					
Tassel	62	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Duda	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.51
TaF:					
Tassel	62	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
Duda	35	Poor		Fair	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.51
UsC2:					
Ulysses	97	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
UsD2:					
Ulysses	100	Poor		Poor	
		Bottom layer	0.00	Bottom layer	0.00
		Thickest layer	0.00	Thickest layer	0.00
VaF:					
Valent	97	Poor		Good	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
VaG:					
Valent	65	Poor		Good	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
Valent	35	Poor		Good	
		Bottom layer	0.00	Bottom layer	0.99
		Thickest layer	0.00	Thickest layer	0.99
VcB:					
Valent	97	Poor		Good	
		Bottom layer	0.00	Thickest layer	0.45
		Thickest layer	0.00	Bottom layer	0.99
VcD:					
Valent	97	Poor		Good	
		Bottom layer	0.00	Thickest layer	0.45
		Thickest layer	0.00	Bottom layer	0.99
VeB:					
Vetal	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.08
		Thickest layer	0.00	Bottom layer	0.09
W:					
Water	100	Not rated		Not rated	

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
Wa:					
Wann	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.07
		Thickest layer	0.00	Bottom layer	0.07
WoB:					
Woodly	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.05
		Thickest layer	0.00	Bottom layer	0.08
WpB:					
Woodly	97	Poor		Fair	
		Bottom layer	0.00	Thickest layer	0.05
		Thickest layer	0.00	Bottom layer	0.09

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:							
Alliance	97	Fair		Fair		Good	
		Low content of organic matter	0.88	Depth to bedrock	0.58		
		Water erosion	0.90				
AED:							
Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Af:							
Altvan	97	Fair		Good		Fair	
		Low content of organic matter	0.12			Hard to reclaim	0.92
		Water erosion	0.99				
		Droughty	0.99				
AfB:							
Altvan	97	Fair		Good		Fair	
		Low content of organic matter	0.12			Hard to reclaim	0.92
		Water erosion	0.99				
		Droughty	0.99				
AfC:							
Altvan	97	Fair		Good		Fair	
		Low content of organic matter	0.12			Hard to reclaim	0.92
		Water erosion	0.99				
		Droughty	0.99				
AsB:							
Ascalon	97	Fair		Good		Good	
		Low content of organic matter	0.50				
AsC:							
Ascalon	97	Fair		Good		Good	
		Low content of organic matter	0.50				
BeB:							
Blanche	97	Fair		Poor		Fair	
		Depth to bedrock	0.84	Depth to bedrock	0.00	Depth to bedrock	0.84
		Low content of organic matter	0.88				
		Droughty	0.97				
Bg:							
Bridget	100	Fair		Good		Good	
		Low content of organic matter	0.88				
		Water erosion	0.90				
BgB:							
Bridget	100	Fair		Good		Good	
		Low content of organic matter	0.88				
		Water erosion	0.90				
BuC:							
Bushman	100	Fair		Good		Good	
		Low content of organic matter	0.88				
Cb:							
Caruso	97	Fair		Fair		Poor	
		Salinity	0.88	Depth to saturated zone	0.89	Salinity	0.00
		Low content of organic matter	0.88			Depth to saturated zone	0.89
ChD:							
Sulco	97	Fair		Good		Fair	
		Low content of organic matter	0.88			Sodium content	0.98
		Water erosion	0.90				
		Sodium content	0.97				

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ChF:							
Sulco	100	Fair		Fair		Poor	
		Low content of organic matter	0.88	Slope	0.50	Slope	0.00
		Water erosion	0.90			Sodium content	0.98
		Sodium content	0.97				
ChG:							
Sulco	100	Fair		Poor		Poor	
		Low content of organic matter	0.88	Slope	0.00	Slope	0.00
		Water erosion	0.90			Sodium content	0.98
		Sodium content	0.97				
CrB:							
Creighton	97	Fair		Good		Good	
		Low content of organic matter	0.18				
		Water erosion	0.90				
CrC:							
Creighton	97	Fair		Good		Good	
		Low content of organic matter	0.18				
		Water erosion	0.90				
CrD:							
Creighton	100	Fair		Good		Fair	
		Low content of organic matter	0.18			Slope	0.96
		Water erosion	0.90				
DbB:							
Dailey	97	Poor		Good		Poor	
		Wind erosion	0.00			Hard to reclaim	0.00
		Too sandy	0.19			Too sandy	0.19
		Droughty	0.33				
		Low content of organic matter	0.88				
DuC:							
Duda	62	Poor		Poor		Poor	
		Too sandy	0.00	Depth to bedrock	0.00	Too sandy	0.00
		Wind erosion	0.00			Depth to bedrock	0.35
		Droughty	0.00				
		Depth to bedrock	0.35				
		Low content of organic matter	0.50				
Tassel	35	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00				
		Depth to bedrock	0.00				
Fu:							
Fluvaquents	100	Poor		Poor		Poor	
		Droughty	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Low content of organic matter	0.00				
Gb:							
Gannett, OVERWASH	100	Fair		Poor		Poor	
		Low content of organic matter	0.88	Depth to saturated zone	0.00	Depth to saturated zone	0.00
Gf:							
Gibbon	95	Fair		Fair		Fair	
		Low content of organic matter	0.88	Depth to saturated zone	0.76	Depth to saturated zone	0.76
Gh:							
Goshen	97	Fair		Good		Good	
		Low content of organic matter	0.12				
		Water erosion	0.90				
HaB:							
Haxtun	97	Poor		Good		Good	
		Wind erosion	0.00				

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HdB:							
Haxtun	97	Good		Good		Good	
INT:							
Aquolls	100	Poor		Poor		Poor	
		Low content of organic matter	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
JaB:							
Jayem	97	Poor		Good		Good	
		Wind erosion	0.00				
		Low content of organic matter	0.18				
JaC:							
Jayem	97	Poor		Good		Good	
		Wind erosion	0.00				
		Low content of organic matter	0.18				
JcB:							
Jayem	97	Fair		Good		Good	
		Low content of organic matter	0.18				
JcC:							
Jayem	100	Fair		Good		Good	
		Low content of organic matter	0.18				
KeB:							
Keith	97	Fair		Good		Good	
		Low content of organic matter	0.12				
		Water erosion	0.90				
KeC2:							
Keith	97	Fair		Good		Good	
		Low content of organic matter	0.12				
		Water erosion	0.90				
Ku:							
Kuma	97	Fair		Fair		Good	
		Water erosion	0.99				
KuB:							
Kuma	97	Fair		Fair		Good	
		Water erosion	0.99				
KuC:							
Kuma	100	Fair		Fair		Good	
		Water erosion	0.99				
LaB:							
Laird	97	Poor		Good		Poor	
		Carbonate content	0.00			Carbonate content	0.00
		Salinity	0.00			Salinity	0.00
		Sodium content	0.22			Sodium content	0.22
		Low content of organic matter	0.88				
M-W:							
Miscellaneous Water	100	Not rated		Not rated		Not rated	
Ma:							
Mace	97	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Water erosion	0.90				
		Droughty	0.99				
MaB:							
Mace	100	Fair		Poor		Fair	
		Depth to bedrock	0.35	Depth to bedrock	0.00	Depth to bedrock	0.35
		Water erosion	0.90				
		Droughty	0.96				

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Mc:							
Mace	62	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Water erosion	0.90				
Alliance	35	Fair		Fair		Good	
		Low content of organic matter	0.88	Depth to bedrock	0.58		
		Water erosion	0.90				
McB:							
Mace	62	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Water erosion	0.90				
Alliance	35	Fair		Fair		Good	
		Low content of organic matter	0.88	Depth to bedrock	0.58		
		Water erosion	0.90				
Mm:							
Mccash	97	Fair		Good		Good	
		Water erosion	0.90				
Mo:							
Mccook	100	Fair		Good		Good	
		Low content of organic matter	0.88				
		Water erosion	0.90				
Mp:							
Mccook	100	Fair		Good		Good	
		Low content of organic matter	0.50				
		Water erosion	0.90				
MtB:							
Mccook	100	Fair		Good		Good	
		Low content of organic matter	0.50				
		Water erosion	0.90				
OaF:							
Otero	70	Fair		Good		Fair	
		Low content of organic matter	0.50			Slope	0.16
Canyon	30	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Slope	0.16
						Rock fragments	0.97
OaG:							
Sulco	60	Fair		Poor		Poor	
		Low content of organic matter	0.88	Slope	0.00	Slope	0.00
		Water erosion	0.90			Sodium content	0.98
		Sodium content	0.97				
Canyon	40	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Slope	0.00
		Depth to bedrock	0.00	Slope	0.00	Depth to bedrock	0.00
						Rock fragments	0.97
Rs:							
Rosebud	97	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Droughty	0.77				
		Low content of organic matter	0.88				
		Water erosion	0.99				
RsB:							
Rosebud	97	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Droughty	0.77				
		Low content of organic matter	0.88				
		Water erosion	0.99				

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Rt:							
Rosebud	62	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Droughty	0.77				
		Low content of organic matter	0.88				
		Water erosion	0.99				
Canyon	35	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Rock fragments	0.97
RtB:							
Rosebud	62	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Droughty	0.77				
		Low content of organic matter	0.88				
		Water erosion	0.99				
Canyon	35	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Rock fragments	0.97
RtC:							
Rosebud	62	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Droughty	0.77				
		Low content of organic matter	0.88				
		Water erosion	0.99				
Canyon	35	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Rock fragments	0.97
RtD2:							
Rosebud	60	Fair		Poor		Fair	
		Depth to bedrock	0.58	Depth to bedrock	0.00	Depth to bedrock	0.58
		Droughty	0.77			Slope	0.96
		Low content of organic matter	0.88				
		Water erosion	0.99				
Canyon	40	Poor		Poor		Poor	
		Droughty	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Depth to bedrock	0.00			Slope	0.96
						Rock fragments	0.97
SaC:							
Sarben	97	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.31
		Low content of organic matter	0.12				
		Too sandy	0.31				
SaD:							
Sarben	97	Poor		Good		Fair	
		Wind erosion	0.00			Too sandy	0.31
		Low content of organic matter	0.12				
		Too sandy	0.31				
SbB:							
Satanta	97	Fair		Good		Good	
		Low content of organic matter	0.88				
SbC:							
Satanta	97	Fair		Good		Good	
		Low content of organic matter	0.88				
Sc:							
Lodgepole	100	Poor		Poor		Poor	
		Too clayey	0.00	Depth to saturated zone	0.00	Depth to saturated zone	0.00
		Water erosion	0.90	Shrink-swell	0.92	Too Clayey	0.00

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TaB:							
Tassel	62	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00				
		Depth to bedrock	0.00				
Duda	35	Poor		Poor		Poor	
		Too sandy	0.00	Depth to bedrock	0.00	Too sandy	0.00
		Wind erosion	0.00			Depth to bedrock	0.58
		Droughty	0.00				
		Low content of organic matter	0.50				
		Depth to bedrock	0.58				
TaF:							
Tassel	62	Poor		Poor		Poor	
		Wind erosion	0.00	Depth to bedrock	0.00	Depth to bedrock	0.00
		Droughty	0.00	Slope	0.50	Slope	0.00
		Depth to bedrock	0.00				
Duda	35	Poor		Poor		Poor	
		Too sandy	0.00	Depth to bedrock	0.00	Too sandy	0.00
		Wind erosion	0.00	Slope	0.50	Slope	0.00
		Droughty	0.00			Depth to bedrock	0.58
		Low content of organic matter	0.50				
		Depth to bedrock	0.58				
UsC2:							
Ulysses	97	Fair		Good		Good	
		Water erosion	0.90				
UsD2:							
Ulysses	100	Fair		Good		Good	
		Water erosion	0.90				
VaF:							
Valent	97	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00			Slope	0.16
		Droughty	0.00				
		Low content of organic matter	0.12				
VaG:							
Valent	65	Poor		Fair		Poor	
		Too sandy	0.00	Slope	0.98	Too sandy	0.00
		Wind erosion	0.00			Slope	0.00
		Droughty	0.00				
		Low content of organic matter	0.12				
Valent	35	Poor		Poor		Poor	
		Too sandy	0.00	Slope	0.00	Slope	0.00
		Wind erosion	0.00			Too sandy	0.00
		Droughty	0.00				
		Low content of organic matter	0.12				
VcB:							
Valent	97	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Droughty	0.00				
		Low content of organic matter	0.12				
VcD:							
Valent	97	Poor		Good		Poor	
		Too sandy	0.00			Too sandy	0.00
		Wind erosion	0.00				
		Droughty	0.00				
		Low content of organic matter	0.12				
VeB:							
Vetal	97	Good		Good		Good	

CONSTRUCTION MATERIALS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
W: Water	100	Not rated		Not rated		Not rated	
Wa: Wann	97	Fair Low content of organic matter Sodium content	0.12 0.97	Fair Depth to saturated zone	0.91	Fair Depth to saturated zone Rock fragments Sodium content	0.91 0.97 0.98
WoB: Woodly	97	Poor Wind erosion Low content of organic matter	0.00 0.12	Good		Good	
WpB: Woodly	97	Fair Low content of organic matter	0.50	Good		Good	

RECREATIONAL INTERPRETATIONS
Chase County, Nebraska

Recreation

The soils of the survey area are rated in the following tables according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:							
Alliance	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
AED:							
Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Af:							
Altvan	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
AfB:							
Altvan	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
AfC:							
Altvan	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Slope	0.87
						Dusty	0.50
AsB:							
Ascalon	97	Not limited		Not limited		Somewhat limited	
						Slope	0.00
AsC:							
Ascalon	97	Not limited		Not limited		Somewhat limited	
						Slope	0.87
BeB:							
Blanche	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
Bg:							
Bridget	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
BgB:							
Bridget	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
BuC:							
Bushman	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.13
Cb:							
Caruso	97	Very limited		Very limited		Very limited	
		Flooding	1.00	Salinity	1.00	Salinity	1.00
		Salinity	1.00			Flooding	0.60
ChD:							
Sulco	97	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.50	Dusty	0.50	Slope	1.00
		Slope	0.00	Slope	0.00	Dusty	0.50
ChF:							
Sulco	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
ChG:							
Sulco	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
CrB:							
Creighton	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
CrC:							
Creighton	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Slope	0.87
						Dusty	0.50
CrD:							
Creighton	100	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.50	Dusty	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Dusty	0.50
DbB:							
Dailey	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.54	Too sandy	0.54	Too sandy	0.54
						Slope	0.00
DuC:							
Duda	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Slope	0.87
						Too sandy	0.84
						Depth to bedrock	0.65
Tassel	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too sandy	0.42	Too sandy	0.42	Slope	0.87
						Too sandy	0.42
Fu:							
Fluvaquents	100	Very limited		Very limited		Very limited	

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Flooding	1.00
		Ponding	1.00	Flooding	0.40	Ponding	1.00
Gb:							
Gannett, OVERWASH---	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
Gf:							
Gibbon----------	95	Very limited		Somewhat limited		Somewhat limited	
		Flooding	1.00	Depth to saturated zone	0.03	Flooding	0.60
		Depth to saturated zone	0.07			Depth to saturated zone	0.07
Gh:							
Goshen----------	97	Very limited		Not limited		Not limited	
		Flooding	1.00				
HaB:							
Haxtun----------	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.95	Too sandy	0.95	Too sandy	0.95
						Slope	0.00
HdB:							
Haxtun----------	97	Not limited		Not limited		Somewhat limited	
						Slope	0.00
INT:							
Aquolls----------	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Restricted permeability	1.00
		Restricted permeability	1.00	Restricted permeability	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
JaB:							
Jayem----------	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.34	Too sandy	0.34	Too sandy	0.34
						Slope	0.00
JaC:							
Jayem----------	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.34	Too sandy	0.34	Slope	0.87
						Too sandy	0.34
JcB:							
Jayem----------	97	Not limited		Not limited		Somewhat limited	
						Slope	0.00
JcC:							
Jayem----------	100	Not limited		Not limited		Somewhat limited	
						Slope	0.87
KeB:							
Keith----------	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
KeC2:							
Keith----------	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Slope	0.87
						Dusty	0.50
Ku:							
Kuma----------	97	Not limited		Not limited		Not limited	
KuB:							
Kuma----------	97	Not limited		Not limited		Somewhat limited	
						Slope	0.00
KuC:							
Kuma----------	100	Not limited		Not limited		Somewhat limited	
						Slope	0.87
LaB:							
Laird----------	97	Very limited		Very limited		Very limited	
		Salinity	1.00	Salinity	1.00	Salinity	1.00
						Slope	0.00
M-W:							
Miscellaneous Water-	100	Not rated		Not rated		Not rated	
Ma:							
Mace----------	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
		Restricted permeability	0.39	Restricted permeability	0.39	Restricted permeability	0.39
MaB:							
Mace----------	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
Mc:							
Mace----------	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Alliance	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
McB:							
Mace	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
Alliance	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
Mm:							
Mccash	97	Not limited		Not limited		Not limited	
Mo:							
Mccook	100	Very limited		Not limited		Not limited	
		Flooding	1.00				
Mp:							
Mccook	100	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
MtB:							
Mccook	100	Very limited		Somewhat limited		Very limited	
		Flooding	1.00	Flooding	0.40	Flooding	1.00
						Slope	0.00
OaF:							
Otero	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.84	Slope	0.84	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
Canyon	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.84	Slope	0.84	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Gravel content	0.04
OaG:							
Sulco	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
Canyon	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Gravel content	0.04
Rs:							
Rosebud	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
RsB:							
Rosebud	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
Rt:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
Canyon	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Gravel content	0.04
RtB:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
Canyon	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Gravel content	0.04
						Slope	0.00
RtC:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Slope	0.87
						Dusty	0.50
						Depth to bedrock	0.42
Canyon	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Dusty	0.50	Dusty	0.50	Slope	0.87
						Dusty	0.50
						Gravel content	0.04
RtD2:							
Rosebud	60	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.50	Dusty	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Dusty	0.50
						Depth to bedrock	0.42
Canyon	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Dusty	0.50	Dusty	0.50	Slope	1.00
		Slope	0.04	Slope	0.04	Dusty	0.50
						Gravel content	0.04

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SaC:							
Sarben	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.49	Too sandy	0.49	Slope	0.87
						Too sandy	0.49
SaD:							
Sarben	97	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.49	Too sandy	0.49	Slope	1.00
		Slope	0.00	Slope	0.00	Too sandy	0.49
SbB:							
Satanta	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Dusty	0.50
						Slope	0.00
SbC:							
Satanta	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Slope	0.87
						Dusty	0.50
Sc:							
Lodgepole	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Ponding	1.00
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
TaB:							
Tassel	62	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42
						Slope	0.00
Duda	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Too sandy	0.84
						Slope	0.00
TaF:							
Tassel	62	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.42	Too sandy	0.42	Too sandy	0.42
Duda	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.84	Too sandy	0.84	Too sandy	0.84
						Depth to bedrock	0.42
UsC2:							
Ulysses	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Dusty	0.50	Dusty	0.50	Slope	0.87
						Dusty	0.50
UsD2:							
Ulysses	100	Somewhat limited		Somewhat limited		Very limited	
		Dusty	0.50	Dusty	0.50	Slope	1.00
		Slope	0.00	Slope	0.00	Dusty	0.50
VaF:							
Valent	97	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Slope	1.00
		Slope	0.84	Slope	0.84	Too sandy	1.00
VaG:							
Valent	65	Very limited		Very limited		Very limited	
		Too sandy	1.00	Too sandy	1.00	Slope	1.00
		Slope	1.00	Slope	1.00	Too sandy	1.00
Valent	35	Very limited		Very limited		Very limited	
		Slope	1.00	Too sandy	1.00	Slope	1.00
		Too sandy	1.00	Slope	1.00	Too sandy	1.00
VcB:							
Valent	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.84	Too sandy	0.84	Too sandy	0.84
						Slope	0.00
VcD:							
Valent	97	Somewhat limited		Somewhat limited		Very limited	
		Too sandy	0.84	Too sandy	0.84	Slope	1.00
						Too sandy	0.84
VeB:							
Vetal	97	Not limited		Not limited		Somewhat limited	
						Slope	0.00
W:							
Water	100	Not rated		Not rated		Not rated	
Wa:							
Wann	97	Very limited		Not limited		Somewhat limited	
		Flooding	1.00			Flooding	0.60
WoB:							
Woodly	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
						Slope	0.00

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WpB:							
Woodly	97	Not limited		Not limited		Somewhat limited Slope	 0.00

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:					
Alliance	97	Somewhat limited		Not limited	
		Dusty	0.50		
AED:					
Arents, Earthen Dam-	100	Not rated		Not rated	
Af:					
Altvan	97	Somewhat limited		Not limited	
		Dusty	0.50		
AfB:					
Altvan	97	Somewhat limited		Not limited	
		Dusty	0.50		
AfC:					
Altvan	97	Somewhat limited		Not limited	
		Dusty	0.50		
AsB:					
Ascalon	97	Not limited		Not limited	
AsC:					
Ascalon	97	Not limited		Not limited	
BeB:					
Blanche	97	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.16
Bg:					
Bridget	100	Somewhat limited		Not limited	
		Dusty	0.50		
BgB:					
Bridget	100	Somewhat limited		Not limited	
		Dusty	0.50		
BuC:					
Bushman	100	Somewhat limited		Not limited	
		Dusty	0.50		
Cb:					
Caruso	97	Not limited		Very limited	
				Salinity	1.00
				Flooding	0.60
ChD:					
Sulco	97	Somewhat limited		Somewhat limited	
		Dusty	0.50	Slope	0.00
ChF:					
Sulco	100	Somewhat limited		Very limited	
		Dusty	0.50	Slope	1.00
		Slope	0.50		
ChG:					
Sulco	100	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Dusty	0.50		
CrB:					
Creighton	97	Somewhat limited		Not limited	
		Dusty	0.50		
CrC:					
Creighton	97	Somewhat limited		Not limited	
		Dusty	0.50		
CrD:					
Creighton	100	Somewhat limited		Somewhat limited	
		Dusty	0.50	Slope	0.04
DbB:					
Dailey	97	Somewhat limited		Somewhat limited	
		Too sandy	0.54	Droughty	0.54
DuC:					
Duda	62	Somewhat limited		Somewhat limited	
		Too sandy	0.84	Droughty	0.76
				Depth to bedrock	0.65
Tassel	35	Somewhat limited		Very limited	
		Too sandy	0.42	Depth to bedrock	1.00
				Droughty	0.97
Fu:					
Fluvaquents	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Flooding	0.40	Depth to saturated zone	1.00
				Droughty	1.00
Gb:					
Gannett, OVERWASH---	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
Gf:					
Gibbon	95	Not limited		Somewhat limited	
				Flooding	0.60

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
				Depth to saturated zone	0.03
Gh:					
Goshen	97	Not limited		Not limited	
HaB:					
Haxtun	97	Somewhat limited		Not limited	
		Too sandy	0.95		
HdB:					
Haxtun	97	Not limited		Not limited	
INT:					
Aquolls	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00
JaB:					
Jayem	97	Somewhat limited		Not limited	
		Too sandy	0.34		
JaC:					
Jayem	97	Somewhat limited		Not limited	
		Too sandy	0.34		
JcB:					
Jayem	97	Not limited		Not limited	
JcC:					
Jayem	100	Not limited		Not limited	
KeB:					
Keith	97	Somewhat limited		Not limited	
		Dusty	0.50		
KeC2:					
Keith	97	Somewhat limited		Not limited	
		Dusty	0.50		
Ku:					
Kuma	97	Not limited		Not limited	
KuB:					
Kuma	97	Not limited		Not limited	
KuC:					
Kuma	100	Not limited		Not limited	
LaB:					
Laird	97	Not limited		Very limited	
				Salinity	1.00
M-W:					
Miscellaneous Water-	100	Not rated		Not rated	
Ma:					
Mace	97	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
MaB:					
Mace	100	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.65
Mc:					
Mace	62	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
Alliance	35	Somewhat limited		Not limited	
		Dusty	0.50		
McB:					
Mace	62	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
Alliance	35	Somewhat limited		Not limited	
		Dusty	0.50		
Mm:					
Mccash	97	Not limited		Not limited	
Mo:					
Mccook	100	Not limited		Not limited	
Mp:					
Mccook	100	Not limited		Somewhat limited	
				Flooding	0.60
MtB:					
Mccook	100	Somewhat limited		Very limited	
		Flooding	0.40	Flooding	1.00
OaF:					
Otero	70	Somewhat limited		Somewhat limited	
		Dusty	0.50	Slope	0.84
Canyon	30	Somewhat limited		Very limited	
		Dusty	0.50	Depth to bedrock	1.00
				Slope	0.84
				Droughty	0.82
OaG:					
Sulco	60	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Dusty	0.50		
Canyon	40	Very limited		Very limited	

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
		Slope	1.00	Depth to bedrock	1.00
		Dusty	0.50	Slope	1.00
				Droughty	0.82
Rs:					
Rosebud	97	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
RsB:					
Rosebud	97	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
Rt:					
Rosebud	62	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
Canyon	35	Somewhat limited		Very limited	
		Dusty	0.50	Depth to bedrock	1.00
				Droughty	0.78
RtB:					
Rosebud	62	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
Canyon	35	Somewhat limited		Very limited	
		Dusty	0.50	Depth to bedrock	1.00
				Droughty	0.78
RtC:					
Rosebud	62	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
Canyon	35	Somewhat limited		Very limited	
		Dusty	0.50	Depth to bedrock	1.00
				Droughty	0.78
RtD2:					
Rosebud	60	Somewhat limited		Somewhat limited	
		Dusty	0.50	Depth to bedrock	0.42
				Slope	0.04
Canyon	40	Somewhat limited		Very limited	
		Dusty	0.50	Depth to bedrock	1.00
				Droughty	0.78
				Slope	0.04
SaC:					
Sarben	97	Somewhat limited		Not limited	
		Too sandy	0.49		
SaD:					
Sarben	97	Somewhat limited		Somewhat limited	
		Too sandy	0.49	Slope	0.00
SbB:					
Satanta	97	Somewhat limited		Not limited	
		Dusty	0.50		
SbC:					
Satanta	97	Somewhat limited		Not limited	
		Dusty	0.50		
Sc:					
Lodgepole	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00
TaB:					
Tassel	62	Somewhat limited		Very limited	
		Too sandy	0.42	Depth to bedrock	1.00
				Droughty	1.00
Duda	35	Somewhat limited		Somewhat limited	
		Too sandy	0.84	Droughty	0.68
				Depth to bedrock	0.42
TaF:					
Tassel	62	Somewhat limited		Very limited	
		Slope	0.50	Depth to bedrock	1.00
		Too sandy	0.42	Droughty	1.00
				Slope	1.00
Duda	35	Somewhat limited		Very limited	
		Too sandy	0.84	Slope	1.00
		Slope	0.50	Droughty	0.68
				Depth to bedrock	0.42
UsC2:					
Ulysses	97	Somewhat limited		Not limited	
		Dusty	0.50		
UsD2:					
Ulysses	100	Somewhat limited		Somewhat limited	
		Dusty	0.50	Slope	0.00
VaF:					
Valent	97	Very limited		Very limited	
		Too sandy	1.00	Droughty	1.00
				Slope	0.84
				Too sandy	0.50

RECREATIONAL INTERPRETATIONS--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
VaG:					
Valent	65	Very limited		Very limited	
		Too sandy	1.00	Droughty	1.00
		Slope	0.02	Slope	1.00
				Too sandy	0.50
Valent	35	Very limited		Very limited	
		Too sandy	1.00	Slope	1.00
		Slope	1.00	Droughty	1.00
				Too sandy	0.50
VcB:					
Valent	97	Somewhat limited		Very limited	
		Too sandy	0.84	Droughty	1.00
VcD:					
Valent	97	Somewhat limited		Very limited	
		Too sandy	0.84	Droughty	1.00
VeB:					
Vetal	97	Not limited		Not limited	
W:					
Water	100	Not rated		Not rated	
Wa:					
Wann	97	Not limited		Somewhat limited	
				Flooding	0.60
WoB:					
Woodly	97	Somewhat limited		Not limited	
		Too sandy	0.96		
WpB:					
Woodly	97	Not limited		Not limited	

WILDLIFE INTERPRETATIONS
Chase County, Nebraska

Use and Explanation of Wildlife Interpretations

Soils directly affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the development of water impoundments. The kind and abundance of wildlife that populate an area depend largely on the amount and distribution of food, cover, water, and living space. If any one of these elements is missing, inadequate, or inaccessible, wildlife will be scarce or will not inhabit the area. If the soils have the potential, wildlife habitat can be created or improved by planting appropriate vegetation, properly managing the existing plant cover, and fostering the natural establishment of desirable plants.

In the Wildlife Interpretations table, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

Suitability Ratings

The potential of the soil is rated good, fair, poor, or very poor.

Good - means that the element of wildlife habitat or the kind of habitat is easily created, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected if the soil is used for the designated purpose.

Fair - means that the element of wildlife habitat or kind of habitat can be created, improved, or maintained in most places. Moderately intensive management is required for satisfactory results.

Poor - means that limitations are severe for the designated element or kind of wildlife habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and requires intensive effort.

Very Poor - means that limitations are very severe for the designated element or kind of wildlife habitat. Habitat is difficult to create, improve, or maintain in most places, and management is difficult and requires intensive effort.

Description of Wildlife Habitat Elements

Openland habitat consists of croplands, pastures, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. The kind of wildlife attracted to these areas include bobwhite quail, pheasant, meadowlark, field sparrow, killdeer, cottontail rabbit, red fox, and coyote.

Woodland habitat consists of hardwood or conifers, or a mixture of these and associated grasses, legumes and wild herbaceous plants. Examples of wildlife attracted to this habitat are wild turkey, thrushes, woodpeckers, owl, tree squirrels, raccoon, and deer.

Wetland habitat consists of water-tolerant plants in open, marshy or swampy, shallow water areas. Examples of wildlife attracted to this habitat are ducks, geese, herons, bitterns, rails, kingfishers, shorebirds, muskrat, mink, and beaver.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, wheat, oats, and barley.

Grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are fescue, lovegrass, bromegrass, clover, and alfalfa.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are bluestem, goldenrod, beggarweed, wheatgrass, and grama.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, poplar, cherry, sweetgum, apple, hawthorn, dogwood, hickory, blackberry, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated good are Russian-olive, autumn-olive, and crabapple.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, spruce, fir, cedar, and juniper.

Shrubs are bushy woody plants that produce fruit, buds, twigs, bark, and foliage. Soil properties and features that affect the growth of shrubs are depth of the root zone, available water capacity, salinity, and soil moisture. Examples of shrubs are fragrant sumac, chokecherry, American plum, sand plum, and gorden currant.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, slope, and surface stoniness. Examples of wetland plants are smartweed, wild millet, saltgrass, cordgrass, rushes, sedges, and cattails.

WILDLIFE INTERPRETATIONS--Continued
Chase County, Nebraska

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability. Examples of shallow water areas are marshes, waterfowl feeding areas, and ponds.

The habitat for various kinds of wildlife is described in the following paragraphs.

Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. Wildlife attracted to these areas include bobwhite quail, pheasant, meadowlark, field sparrow, cottontail, red fox and coyote.

Habitat for woodland wildlife consists of areas of deciduous and/or coniferous plants and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include wild turkey, thrushes, woodpeckers, squirrels, gray fox, raccoon, and deer.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, and beaver.

Habitat for rangeland wildlife consists of areas of shrubs and wild herbaceous plants. Wildlife attracted to rangeland include antelope, deer, cottontail rabbit, prairie chicken, meadowlark, quail, and pheasant.

WILDLIFE INTERPRETATIONS
Chase County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hard-wood trees	Conif-erous plants	Shrubs	Wetland plants	Shallow water areas	Open-land wild-life	Wood-land wild-life	Wetland wild-life	Range-land wild-life
Ac: ALLIANCE--------	Good	Good	Good	Good	Good	Good	Very poor	Poor	Good	Good	Poor	Good
AED: ARENTS, EARTHEN DAM----------	---	---	---	---	---	---	---	---	---	---	---	---
Af: ALTVAN----------	Good	Good	Good	Good	Fair	Good	Very poor	Very poor	Good	Good	Very poor	Good
AfB: ALTVAN----------	Fair	Good	Good	Good	Fair	Good	Very poor	Very poor	Good	Good	Very poor	Good
AfC: ALTVAN----------	Fair	Good	Good	Good	Fair	Good	Very poor	Very poor	Good	Good	Very poor	Good
AsB: ASCALON---------	Good	Good	Fair	---	---	Fair	Poor	Very poor	Good	---	Very poor	Fair
AsC: ASCALON---------	Fair	Fair	Fair	---	---	Fair	Poor	Very poor	Fair	---	Very poor	Fair
BeB: BLANCHE---------	Fair	Good	Good	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair
Bg: BRIDGET---------	Good	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor	Good
BgB: BRIDGET---------	Good	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor	Good
BuC: BUSHMAN---------	Poor	Fair	Fair	---	---	Fair	---	---	Fair	---	---	Fair
Cb: CARUSO----------	Fair	Fair	Good	Poor	Poor	Fair	Fair	Fair	Fair	Poor	Fair	Fair
ChD: SULCO----------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
ChF: SULCO----------	Poor	Fair	Fair	Good	Good	Fair	Very poor	Very poor	Fair	Good	Very poor	Fair
ChG: SULCO----------	Very poor	Very poor	Fair	Poor	Poor	Fair	Very poor	Very poor	Poor	Poor	Very poor	Fair
CrB: CREIGHTON-------	Good	Good	Fair	Good	Good	Fair	Poor	Poor	Good	Good	Poor	Fair
CrC: CREIGHTON-------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Poor	Fair
CrD: CREIGHTON-------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
DbB: DAILEY----------	Poor	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor	Fair
DuC: DUDA----------	Very poor	Very poor	Fair	Poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Fair
TASSEL----------	Poor	Poor	Poor	Fair	Fair	Poor	Very poor	Very poor	Poor	Fair	Very poor	Poor
Fu: FLUVAQUENTS-----	Very poor	Very poor	Poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good	Very poor

WILDLIFE INTERPRETATIONS--Continued
Chase County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hard-wood trees	Conif-erous plants	Shrubs	Wetland plants	Shallow water areas	Open-land wild-life	Wood-land wild-life	Wetland wild-life	Range-land wild-life
Gb: GANNETT----------	Very poor	Poor	Fair	Poor	Poor	Fair	Good	Good	Poor	Poor	Good	Fair
Gf: GIBBON----------	Good	Good	Good	Good	Fair	Good	Fair	Good	Good	Good	Fair	Good
Gh: GOSHEN----------	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
HaB: HAXTUN----------	Fair	Good	Fair	---	---	Fair	Poor	Very poor	Fair	---	Very poor	Fair
HdB: HAXTUN----------	Good	Good	Fair	---	---	Fair	Poor	Very poor	Good	---	Very poor	Fair
INT: AQUOLLS---------	---	---	---	---	---	---	---	---	---	---	---	---
JaB: JAYEM----------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
JaC: JAYEM----------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
JcB: JAYEM----------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
JcC: JAYEM----------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
KeB: KEITH----------	Good	Good	Good	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor	Good
KeC2: KEITH----------	Fair	Good	Good	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor	Good
Ku: KUMA----------	Good	Good	Fair	---	---	Poor	Poor	Very poor	Fair	---	Very poor	Poor
KuB: KUMA----------	Good	Good	Fair	---	---	Poor	Poor	Very poor	Fair	---	Very poor	Poor
KuC: KUMA----------	Good	Good	Fair	---	---	Poor	Poor	Very poor	Fair	---	Very poor	Poor
LaB: LAIRD----------	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Poor	Poor	Very poor	Poor	Poor
LD: ----------	---	---	---	---	---	---	---	---	---	---	---	---
M-W: MISCELLANEOUS WATER----------	---	---	---	---	---	---	---	---	---	---	---	---
Ma: MACE----------	Good	Good	Fair	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair
MaB: MACE----------	Good	Good	Fair	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair
Mc: MACE----------	Good	Good	Fair	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair
ALLIANCE--------	Good	Good	Good	Good	Good	Good	Very poor	Poor	Good	Good	Poor	Good

WILDLIFE INTERPRETATIONS--Continued
Chase County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hard-wood trees	Conif-erous plants	Shrubs	Wetland plants	Shallow water areas	Open-land wild-life	Wood-land wild-life	Wetland wild-life	Range-land wild-life
McB:												
MACE----------	Good	Good	Fair	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair
ALLIANCE--------	Good	Good	Good	Good	Good	Good	Very poor	Poor	Good	Good	Poor	Good
Mm:												
MCCASH----------	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
Mo:												
MCCOOK----------	Good	Good	Fair	Good	Fair	Good	Very poor	Very poor	Good	Fair	Very poor	Good
Mp:												
MCCOOK----------	Good	Good	Good	Good	Fair	Good	Very poor	Very poor	Good	Fair	Very poor	Good
MtB:												
MCCOOK----------	Poor	Poor	Fair	Good	Fair	Good	Very poor	Very poor	Poor	Fair	Very poor	Good
OaF:												
OTERO-----------	Poor	Fair	Good	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
CANYON----------	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Fair	Very poor	Fair
OaG:												
SULCO-----------	Very poor	Very poor	Fair	Poor	Poor	Fair	Very poor	Very poor	Poor	Poor	Very poor	Fair
CANYON----------	Very poor	Very poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor	Poor
Rs:												
ROSEBUD---------	Good	Good	Fair	---	Good	Fair	Very poor	Very poor	Fair	---	Very poor	Fair
RsB:												
ROSEBUD---------	Good	Good	Fair	---	Good	Fair	Very poor	Very poor	Fair	---	Very poor	Fair
Rt:												
ROSEBUD---------	Good	Good	Fair	---	Good	Fair	Very poor	Very poor	Fair	---	Very poor	Fair
CANYON----------	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Fair	Very poor	Fair
RtB:												
ROSEBUD---------	Good	Good	Fair	---	Good	Fair	Very poor	Very poor	Fair	---	Very poor	Fair
CANYON----------	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Fair	Very poor	Fair
RtC:												
ROSEBUD---------	Fair	Good	Fair	---	Good	Fair	Very poor	Very poor	Fair	---	Very poor	Fair
CANYON----------	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Fair	Very poor	Fair
RtD2:												
ROSEBUD---------	Fair	Good	Fair	---	Good	Fair	Very poor	Very poor	Fair	---	Very poor	Fair
CANYON----------	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Fair	Very poor	Fair
SaC:												
SARBEN----------	Fair	Good	Good	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor	Good
SaD:												
SARBEN----------	Fair	Good	Good	Fair	Fair	Good	Very poor	Very poor	Good	Fair	Very poor	Good
SbB:												
SATANTA---------	Good	Good	Fair	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair

WILDLIFE INTERPRETATIONS--Continued
Chase County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba-ceous plants	Hard-wood trees	Conif-erous plants	Shrubs	Wetland plants	Shallow water areas	Open-land wild-life	Wood-land wild-life	Wetland wild-life	Range-land wild-life
SbC:												
SATANTA---------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
Sc:												
LODGEPOLE-------	Poor	Fair	Fair	Poor	Poor	Poor	Good	Good	Fair	Poor	Good	Poor
TaB:												
TASSEL----------	Poor	Poor	Poor	Fair	Fair	Poor	Very poor	Very poor	Poor	Fair	Very poor	Poor
DUDA------------	Poor	Fair	Fair	Poor	Very poor	Poor	Very poor	Very poor	Poor	Very poor	Very poor	Fair
TaF:												
TASSEL----------	Poor	Poor	Poor	Fair	Fair	Poor	Very poor	Very poor	Poor	Fair	Very poor	Poor
DUDA------------	Very poor	Very poor	Fair	Poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Fair
UsC2:												
ULYSSES---------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
UsD2:												
ULYSSES---------	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
VaF:												
VALENT----------	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
VaG:												
VALENT----------	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
VALENT----------	Very poor	Very poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor	Fair
VcB:												
VALENT----------	Fair	Good	Fair	Poor	Fair	Fair	Very poor	Very poor	Fair	Poor	Very poor	Fair
VcD:												
VALENT----------	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
VeB:												
VETAL-----------	Fair	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
W:												
WATER-----------	---	---	---	---	---	---	---	---	---	---	---	---
Wa:												
WANN------------	Good	Good	Good	Good	Fair	Good	Poor	Fair	Good	Good	Fair	Good
WoB:												
WOODLY----------	Fair	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
WpB:												
WOODLY----------	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good

YIELDS PER ACRE OF PASTURE AND HAYLAND
Chase County, Nebraska

Use and Explanation of Pastureland and Hayland Interpretations

This subsection provides information concerning the suitability of soils for the production of pasture and hayland. This subsection may contain pasture and hayland suitability groupings, land capability and yield estimates, yield estimates for individual grasses or legumes, or other information pertaining to the production of forage.

Pasture and Hayland Suitability Groupings

Soils are placed in pasture and hayland groups according to their suitability for the production of forage. The soils in each group are enough alike to be suited to the same grasses or legumes, to have similar limitations and hazards, to require similar management, and to have similar productivity and other responses to management. Thus, the pasture and hayland suitability group is a convenient way of grouping the soils for their management. If used, these groupings are identified and described in other reports in the subsection.

Yield Estimates

The average yields per acre that can be expected of the principal pasture or hayland crops, under a high level of management, are presented in this subsection. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall or other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

Under good management, proper grazing is essential for the production of high quality forage, stand survival, and erosion control. Proper grazing helps plants maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation are also important management practices.

The Pasture and Hayland table show yield estimates in tons per acre and animal unit months for pasture and hayland groups. An animal unit month is the amount of forage required by one animal unit (AU) for 30 days. On animal unit (AU) is one (1000 pound) mature cow and a calf up to weaning age (usually six months of age) or their equivalent. The Natural Resources Conservation Service uses 900 pounds of air dry forage as the amount needed to meet this requirement. To maintain a healthy and vigorous plant community, the degree of use should never be greater than 50 percent. Therefore only 25 percent of the total biomass grown is considered consumed by the grazing animal. Animal Unit Months can be converted to air dry pounds per acre production by multiplying the AUM by 30 days, then by 30 pounds per day, and then by four. This figure is the amount of total forage production.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil in the Nontechnical Description section. Specific information on plants and yields can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

YIELDS PER ACRE OF PASTURE AND HAYLAND--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)
Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
Ac:				
Alliance	2c	1	---	5.50
AED:				
Arents, Earthen Dam	8	---	---	---
Af:				
Altvan	2c	2s	---	4.50
AfB:				
Altvan	3e	3e	---	4.30
AfC:				
Altvan	4e	4e	---	4.00
AsB:				
Ascalon	2e	2e	---	5.00
AsC:				
Ascalon	3e	3e	---	5.00
BeB:				
Blanche	4e	4e	---	4.00
Bg:				
Bridget	2c	1	---	5.50
BgB:				
Bridget	2e	2e	---	5.30
BuC:				
Bushman	3e	2e	---	4.50
Cb:				
Caruso	2w	2w	3.00	5.00
ChD:				
Sulco	4e	4e	---	3.00
ChF:				
Sulco	6e	---	---	---
ChG:				
Sulco	7e	---	---	---
CrB:				
Creighton	2e	2e	---	5.30
CrC:				
Creighton	3e	3e	---	4.80
CrD:				
Creighton	4e	4e	---	4.50
DbB:				
Dailey	4e	4e	---	4.50
DuC:				
Duda	6e	4e	---	3.50
Tassel	6s	---	---	3.50
Fu:				
Fluvaquents	8w	---	---	---
Gb:				
Gannett, OVERWASH	5w	---	---	---
Gf:				
Gibbon	2w	2w	3.50	5.80
Gh:				
Goshen	2c	1	---	6.00
HaB:				
Haxtun	3e	3e	---	5.00
HdB:				
Haxtun	2e	2e	---	5.30

YIELDS PER ACRE OF PASTURE AND HAYLAND--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)
Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
INT:				
Aquolls	5w	---	---	---
JaB:				
Jayem	4e	3e	---	4.50
JaC:				
Jayem	4e	4e	---	3.30
JcB:				
Jayem	3e	2e	---	4.50
JcC:				
Jayem	4e	3e	---	4.00
KeB:				
Keith	2e	2e	---	5.30
KeC2:				
Keith	3e	3e	---	4.50
Ku:				
Kuma	2c	1	---	5.50
KuB:				
Kuma	2e	2e	---	5.30
KuC:				
Kuma	3e	3e	---	5.00
LaB:				
Laird	4s	4s	---	4.00
LD:				
	---	---	---	---
M-W:				
Miscellaneous Water	---	---	---	---
Ma:				
Mace	2c	1	---	5.20
MaB:				
Mace	2e	2e	---	5.00
Mc:				
Mace	2c	1	---	5.30
Alliance	2c	1	---	5.30
McB:				
Mace	2e	2e	---	5.10
Alliance	2e	2e	---	5.10
Mm:				
Mccash	2c	2e	2.50	4.80
Mo:				
Mccook	2c	1	2.80	6.00
Mp:				
Mccook	2w	2w	2.50	6.00
MtB:				
Mccook	6w	---	---	---
OaF:				
Otero	6e	---	---	---
Canyon	6s	---	---	---
OaG:				
Sulco	7e	---	---	---
Canyon	7s	---	---	---
Rs:				
Rosebud	2c	1	---	5.20

YIELDS PER ACRE OF PASTURE AND HAYLAND--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)
Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
RsB:				
Rosebud	3e	3e	---	5.10
Rt:				
Rosebud	2c	1	---	4.80
Canyon	6s	---	---	4.80
RtB:				
Rosebud	3e	3e	---	4.50
Canyon	6s	---	---	4.50
RtC:				
Rosebud	4e	3e	---	4.00
Canyon	6s	---	---	4.00
RtD2:				
Rosebud	4e	4e	---	3.50
Canyon	6s	---	---	3.50
SaC:				
Sarben	4e	4e	---	3.50
SaD:				
Sarben	4e	4e	---	3.20
SbB:				
Satanta	2e	2e	---	5.00
SbC:				
Satanta	3e	3e	---	5.00
Sc:				
Lodgepole	3w	4w	---	---
TaB:				
Tassel	6s	---	---	3.00
Duda	4e	4e	---	3.00
TaF:				
Tassel	6s	---	---	---
Duda	6e	---	---	---
UsC2:				
Ulysses	3e	3e	---	4.50
UsD2:				
Ulysses	4e	4e	---	3.50
VaF:				
Valent	6e	---	---	---
VaG:				
Valent	6e	---	---	---
Valent	7e	---	---	---
VcB:				
Valent	6e	4e	---	3.50
VcD:				
Valent	6e	4e	---	3.00
VeB:				
Vetal	3e	2e	2.40	4.80
W:				
Water	---	---	---	---
Wa:				
Wann	2w	2w	3.50	5.80
WoB:				
Woodly	3e	3e	---	5.00

YIELDS PER ACRE OF PASTURE AND HAYLAND--Continued
Chase County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil) Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
WpB:				
Woodly	2e	2e	---	5.00

CONSERVATION TREE AND SHRUB MANAGEMENT
Chase County, Nebraska

A Conservation Tree/Shrub Suitability Group (CTSG), formerly Windbreak Suitability Group, is a physiographic unit or area having similar climatic and edaphic characteristics that control the selection and height growth of trees and shrubs.

In this table, the Conservation Tree and Shrub Grouping is expressed as a group index number. The group index for Conservation Tree and Shrub groups (CTSG) are a guide for species best suited for different kinds of soil and for prediction height, growth, and effectiveness. The groupings can be used when selection woody plants for windbreaks, wildlife plantings riparian buffers, reforestation, other environmental plantings, recreation, landscaping, wetland restoration or enhancement and critical area plantings. CTSG's are developed to assure satisfactory species selection and adaptation to specific conditions of soil, climate and physiography. CTSG's are a guide for selection species best suited for different kinds of soil and prediction height growth and effectiveness.

All soil series mapped in the state have been placed in 10 groups of similar soil characteristics. Groups 1, 2, 3, 4, 6, and 9 are further divided into subgroups. In addition, all groups provide information by Major Land Resource Areas.

Each tree or shrub species has certain climatic and physiographic limits. Within these parameters a tree or shrub may be well or poorly suited because of soil characteristics. Each tree or shrub also has definable potentials of height growth depending on the factors just mentioned. Accurate definitions of potential heights are necessary for proper windbreak planning and design.

Windbreaks protect livestock, buildings, roads and yards from wind and snow. They also protect fruit trees and gardens, and they furnish habitat for wildlife. Several rows of low-growing and high-growing broadleaf and coniferous trees and shrubs provide the most protection.

Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil. Field windbreaks protect cropland and crops from wind, help to keep snow on the fields, and provide food and cover for wildlife.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Windbreaks are often planted on land that did not grow trees originally. Knowledge of how trees perform on such land can be gained only by observing and recording their performance where trees have been planted and survived. The problem is compounded by the fact that many favorite windbreak species are not indigenous to the areas in which they are planted.

The Kansas Field Office Technical Guide Notice KS-230, Conservation Tree and Shrub Plantings Suitability Groups shows the adapted species listing for each group index number. Showing the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates are based on measurements and observation of established plantings that have been given adequate care. This information should be used to determine the placement of a windbreak, the area protected and the arrangement of species.

A number of attributes are included in the CTSG species tables for each group number found in this section of the Field Office Technical Guide. These attributes were rated subjectively and assigned a relative value to further assist those unfamiliar with individual species characteristics or desirability for the intended use. Definitions and explanations can be found. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from the local office of the Natural Resources Conservation Service or of the Cooperative Extension Service or from a commercial nursery. See part 537 of the National Forestry Manual for additional information.

In the Tree and Shrub Management table interpretive ratings are given for various aspects of forest and conservation tree and shrub management. Some rating class terms indicate the degree to which the soils are suited to a specified forest management practice. Well suited indicates that the soil has features that are favorable for the specified practice and has no limitations. Good performance can be expected, and little or no maintenance is needed. Moderately well suited indicates that the soil has features that are moderately favorable for the specified practice. One or more soil properties are less than desirable and fair performance can be expected. Some maintenance is needed. Poorly suited indicates that the soil has one or more properties that are unfavorable for the specified practice. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. Unsuited indicates that the expected performance of the soil is unacceptable for the specified practice or that extreme measures are needed to overcome the undesirable soil properties.

The paragraphs that follow indicate the soil properties considered in rating the soils for forest and conservation tree and shrub management practices. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet. Also, in the Kansas Field Office Technical Guide Notice KS-230, Conservation Tree and Shrub Plantings Suitability Groups.

Ratings in the columns suitability for hand planting and suitability for mechanical planting are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately well suited, poorly suited, or unsuited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column suitability for mechanical site preparation (surface) are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 1-foot is considered in the ratings.

Ratings in the column suitability for mechanical site preparation (deep) are based on slope, depth to a restrictive layer, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsuited to this management activity. The part of the soil from the surface to a depth of about 3 feet is considered in the ratings.

Ratings in the column potential for seedling mortality are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality. See the National Forestry Manual, Subpart B for criteria used in rating management concerns. Specific information on plants and yields can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

CONSERVATION TREE AND SHRUB MANAGEMENT
Chase County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
Ac:						
Alliance----------		Well suited	Well suited	Well suited	Well suited	Low
AED:						
Arents, Earthen Dam-		Not rated	Not rated	Not rated	Not rated	Not rated
Af:						
Altvan----------		Well suited	Well suited	Well suited	Well suited	Low
AfB:						
Altvan----------		Well suited	Well suited	Well suited	Well suited	Low
AfC:						
Altvan----------		Well suited	Moderately suited Slope	Well suited	Well suited	Low
AsB:						
Ascalon----------		Well suited	Well suited	Well suited	Well suited	Low
AsC:						
Ascalon----------		Well suited	Moderately suited Slope	Well suited	Well suited	Low
BeB:						
Blanche----------		Well suited	Well suited	Well suited	Well suited	Low
Bg:						
Bridget----------		Well suited	Well suited	Well suited	Well suited	Low
BgB:						
Bridget----------		Well suited	Well suited	Well suited	Well suited	Low
BuC:						
Bushman----------		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
Cb:						
Caruso----------		Well suited	Well suited	Well suited	Well suited	High Salinity Soil reaction
ChD:						
Sulco----------		Well suited	Moderately suited Slope	Well suited	Well suited	Moderate Soil reaction
ChF:						
Sulco----------		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Moderate Soil reaction
ChG:						
Sulco----------		Moderately suited Slope	Unsuited Slope	Unsuited Slope	Unsuited Slope	Moderate Soil reaction
CrB:						
Creighton----------		Well suited	Well suited	Well suited	Well suited	Low
CrC:						
Creighton----------		Well suited	Moderately suited Slope	Well suited	Well suited	Low
CrD:						
Creighton----------		Well suited	Moderately suited Slope	Well suited	Well suited	Low
DbB:						
Dailey----------		Well suited	Well suited	Well suited	Well suited	Low
DuC:						
Duda----------		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Tassel----------		Well suited	Moderately suited Slope	Well suited	Well suited	Moderate Soil reaction
Fu:						
Fluvaquents---------		Unsuited Wetness Rock fragments	Unsuited Wetness Rock fragments	Unsuited Wetness Rock fragments	Unsuited Wetness	High Wetness
Gb:						
Gannett, OVERWASH---		Well suited	Well suited	Well suited	Well suited	High Wetness
Gf:						
Gibbon----------		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
Gh:						
Goshen----------		Well suited	Well suited	Well suited	Well suited	Low
HaB:						
Haxtun----------		Well suited	Well suited	Well suited	Well suited	Low
HdB:						
Haxtun----------		Well suited	Well suited	Well suited	Well suited	Low

CONSERVATION TREE AND SHRUB MANAGEMENT
Chase County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
INT:						
Aquolls		Well suited	Well suited	Well suited	Well suited	High Wetness Soil reaction
JaB:						
Jayem		Well suited	Well suited	Well suited	Well suited	Low
JaC:						
Jayem		Well suited	Moderately suited Slope	Well suited	Well suited	Low
JcB:						
Jayem		Well suited	Well suited	Well suited	Well suited	Low
JcC:						
Jayem		Well suited	Moderately suited Slope	Well suited	Well suited	Low
KeB:						
Keith		Well suited	Well suited	Well suited	Well suited	Low
KeC2:						
Keith		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Ku:						
Kuma		Well suited	Well suited	Well suited	Well suited	Low
KuB:						
Kuma		Well suited	Well suited	Well suited	Well suited	Low
KuC:						
Kuma		Well suited	Moderately suited Slope	Well suited	Well suited	Low
LaB:						
Laird		Well suited	Well suited	Well suited	Well suited	High Soil reaction Salinity Lime
M-W:						
Miscellaneous Water		Not rated	Not rated	Not rated	Not rated	Not rated
Ma:						
Mace		Moderately suited Stickiness	Moderately suited Stickiness	Well suited	Well suited	Low
MaB:						
Mace		Moderately suited Stickiness	Moderately suited Stickiness	Well suited	Well suited	Low
Mc:						
Mace		Moderately suited Stickiness	Moderately suited Stickiness	Well suited	Well suited	Low
Alliance		Well suited	Well suited	Well suited	Well suited	Low
McB:						
Mace		Moderately suited Stickiness	Moderately suited Stickiness	Well suited	Well suited	Low
Alliance		Well suited	Well suited	Well suited	Well suited	Low
Mm:						
Mccash		Well suited	Well suited	Well suited	Well suited	Low
Mo:						
Mccook		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
Mp:						
Mccook		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
MtB:						
Mccook		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
OaF:						
Otero		Well suited	Moderately suited Slope	Well suited	Well suited	Moderate Soil reaction
Canyon		Well suited	Moderately suited Slope	Well suited	Well suited	Moderate Soil reaction
OaG:						
Sulco		Moderately suited Slope	Unsuited Slope	Unsuited Slope	Unsuited Slope	Moderate Soil reaction
Canyon		Well suited	Unsuited Slope	Poorly suited Slope	Poorly suited Slope	Moderate Soil reaction

CONSERVATION TREE AND SHRUB MANAGEMENT
Chase County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
Rs:						
Rosebud		Well suited	Well suited	Well suited	Well suited	Low
RsB:						
Rosebud		Well suited	Well suited	Well suited	Well suited	Low
Rt:						
Rosebud		Well suited	Well suited	Well suited	Well suited	Low
Canyon		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
RtB:						
Rosebud		Well suited	Well suited	Well suited	Well suited	Low
Canyon		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
RtC:						
Rosebud		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Canyon		Well suited	Moderately suited Slope	Well suited	Well suited	Moderate Soil reaction
RtD2:						
Rosebud		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Canyon		Well suited	Moderately suited Slope	Well suited	Well suited	Moderate Soil reaction
SaC:						
Sarben		Well suited	Moderately suited Slope	Well suited	Well suited	Low
SaD:						
Sarben		Well suited	Moderately suited Slope	Well suited	Well suited	Low
SbB:						
Satanta		Well suited	Well suited	Well suited	Well suited	Low
SbC:						
Satanta		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Sc:						
Lodgepole		Poorly suited Stickiness	Poorly suited Stickiness	Poorly suited Stickiness	Well suited	High Wetness
TaB:						
Tassel		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
Duda		Well suited	Well suited	Well suited	Well suited	Low
TaF:						
Tassel		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Moderate Soil reaction
Duda		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Low
UsC2:						
Ulysses		Well suited	Moderately suited Slope	Well suited	Well suited	Low
UsD2:						
Ulysses		Well suited	Moderately suited Slope	Well suited	Well suited	Low
VaF:						
Valent		Moderately suited Sandiness	Moderately suited Slope Sandiness	Well suited	Well suited	Low
VaG:						
Valent		Moderately suited Sandiness	Poorly suited Slope Sandiness	Poorly suited Slope	Poorly suited Slope	Low
Valent		Moderately suited Sandiness Slope	Unsuited Slope Sandiness	Unsuited Slope	Unsuited Slope	Low
VcB:						
Valent		Moderately suited Sandiness	Moderately suited Sandiness	Well suited	Well suited	Low

CONSERVATION TREE AND SHRUB MANAGEMENT
Chase County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
VcD:						
Valent		Moderately suited Sandiness	Moderately suited Sandiness Slope	Well suited	Well suited	Low
VeB:						
Vetal		Well suited	Well suited	Well suited	Well suited	Low
W:						
Water		Not rated	Not rated	Not rated	Not rated	Not rated
Wa:						
Wann		Well suited	Well suited	Well suited	Well suited	Low
WoB:						
Woodly		Well suited	Well suited	Well suited	Well suited	Low
WpB:						
Woodly		Well suited	Well suited	Well suited	Well suited	Low

ENGINEERING INDEX PROPERTIES
Chase County, Nebraska

Engineering Index Properties table gives the engineering classifications and the range of index properties for the layers of each soil in the survey area. Depth to the upper and lower boundaries of each layer is indicated. Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. Loam, for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, gravelly. Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 1998) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 1998). The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection. If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest. The AASHTO classification for soils tested, with group index numbers in parentheses, is given in Engineering Index Properties table.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

ENGINEERING INDEX PROPERTIES--Continued
Chase County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
Ac:												
Alliance-------	0-9	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	90-100	70-90	20-40	2-15
	9-17	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	70-100	30-50	10-25
	17-24	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	60-90	20-40	2-15
	24-50	Very fine sandy loam	CL-ML, ML, SC, SM	A-4	0	0-5	85-100	85-100	70-100	40-90	15-30	NP-10
	50-60	Weathered bedrock			---	---	---	---	---	---	---	---
AED:												
Arents, Earthen Dam----------	---	---	---	---	---	---	---	---	---	---	---	---
Af:												
Altvan---------	0-7	Loam	CL, CL-ML, ML	A-4	0	0	100	100	85-95	60-75	20-30	2-10
	7-21	Clay loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	75-100	60-80	25-40	5-15
	21-26	Loam	ML	A-4	0	0	85-100	80-100	70-95	55-75	25-35	2-10
	26-60	Coarse sand	SP-SM	A-1, A-2-4, A-3	0	0	60-95	50-90	25-60	5-10	---	NP
AfB:												
Altvan---------	0-7	Loam	CL, CL-ML, ML	A-4	0	0	100	100	85-95	60-75	20-30	2-10
	7-21	Clay loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	75-100	60-80	25-40	5-15
	21-26	Loam	ML	A-4	0	0	85-100	80-100	70-95	55-75	25-35	2-10
	26-60	Gravelly coarse sand	SP-SM	A-1, A-2-4, A-3	0	0	60-95	50-90	25-60	5-10	---	NP
AfC:												
Altvan---------	0-7	Loam	CL, CL-ML, ML	A-4	0	0	100	100	85-95	60-75	20-30	2-10
	7-21	Clay loam	CL, CL-ML	A-4, A-6	0	0	90-100	85-100	75-100	60-80	25-40	5-15
	21-26	Loam	ML	A-4	0	0	85-100	80-100	70-95	55-75	25-35	2-10
	26-60	Coarse sand	SP-SM	A-1, A-2-4, A-3	0	0	60-95	50-90	25-60	5-10	---	NP
AsB:												
Ascalon--------	0-10	Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	95-100	90-100	70-95	25-45	15-25	NP-5
	10-22	Sandy clay loam	CL, SC	A-6	0	0	95-100	90-100	80-100	40-55	20-40	10-20
	22-28	Fine sandy loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	95-100	95-100	75-95	35-65	20-40	5-15
	28-60	Fine sandy loam	SM	A-2, A-4	0	0	95-100	95-100	70-95	20-45	0-14	NP
AsC:												
Ascalon--------	0-10	Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	95-100	90-100	70-95	25-45	15-25	NP-5
	10-22	Sandy clay loam	CL, SC	A-6	0	0	95-100	90-100	80-100	40-55	20-40	10-20
	22-28	Fine sandy loam	CL, CL-ML, SC, SC-SM	A-6, A-4	0	0	95-100	95-100	75-95	35-65	20-40	5-15
	28-60	Loamy fine sand	SM	A-2, A-4	0	0	95-100	95-100	70-95	20-45	0-14	NP
BeB:												
Blanche--------	0-11	Very fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-95	40-65	15-25	NP-6
	11-26	Fine sandy loam	CL, ML, SC, SM	A-4	0	0	100	100	70-95	40-75	15-30	NP-10
	26-34	Fine sandy loam	SM, SC, ML, CL	A-4	0	0	95-100	95-100	70-95	35-55	15-30	NP-10
	34-60	Weathered bedrock			---	---	---	---	---	---	---	---
Bg:												
Bridget--------	0-12	Silt loam	CL, CL-ML, ML	A-4	0	0	95-100	95-100	80-100	65-90	20-35	2-15
	12-21	Silt loam	CL, CL-ML, ML	A-4	0	0	95-100	95-100	85-100	80-100	20-35	2-15
	21-60	Very fine sandy loam	CL, CL-ML, ML	A-4	0	0	95-100	95-100	85-100	80-100	20-35	2-15
BgB:												
Bridget--------	0-12	Silt loam	CL, CL-ML, ML	A-4	0	0	95-100	95-100	80-100	65-90	20-35	2-15
	12-21	Silt loam	CL, CL-ML, ML	A-4	0	0	95-100	95-100	85-100	80-100	20-35	2-15
	21-60	Very fine sandy loam	CL, CL-ML, ML	A-4	0	0	95-100	95-100	85-100	80-100	20-35	2-15
BuC:												
Bushman--------	0-7	Very fine sandy loam	CL-ML, ML	A-4	0	0	100	100	85-95	50-65	20-25	NP-5
	7-60	Very fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-85	35-65	20-25	NP-5
Cb:												
Caruso---------	0-12	Loam	ML, CL, CL-ML	A-4, A-6	0	0	100	100	95-100	65-90	25-40	5-20
	12-60	Loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	100	100	95-100	65-85	25-45	5-20
ChD:												
Sulco----------	0-4	Silt loam	ML, CL, CL-ML	A-4	0	0	100	100	90-100	70-90	20-30	NP-10
	4-60	Silt loam	ML, CL-ML, CL	A-4	0	0	100	100	85-100	50-90	20-30	NP-10
ChF:												
Sulco----------	0-4	Silt loam	ML, CL, CL-ML	A-4	0	0	100	100	90-100	70-90	20-30	NP-10
	4-60	Silt loam	ML, CL-ML, CL	A-4	0	0	100	100	85-100	50-90	20-30	NP-10
ChG:												
Sulco----------	0-4	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	90-100	70-90	20-30	NP-10
	4-60	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	85-100	50-90	20-30	NP-10
CrB:												
Creighton------	0-12	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	90-100	85-100	50-65	15-25	NP-5
	12-20	Very fine sandy loam	CL, CL-ML, ML	A-4	0	0	100	90-100	85-100	60-80	15-30	NP-10
	20-60	Very fine sandy loam	CL, CL-ML, ML	A-4	0	0	100	90-100	85-100	60-80	15-30	NP-10

ENGINEERING INDEX PROPERTIES--Continued
Chase County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
CrC:												
Creighton------	0-12	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	90-100	85-100	50-65	15-25	NP-5
	12-20	Very fine sandy loam	ML, CL, CL-ML	A-4	0	0	100	90-100	85-100	60-80	15-30	NP-10
	20-60	Very fine sandy loam	CL, CL-ML, ML	A-4	0	0	100	90-100	85-100	60-80	15-30	NP-10
CrD:												
Creighton------	0-12	Very fine sandy loam	CL-ML, ML	A-4	0	0	100	90-100	85-100	50-65	15-25	NP-5
	12-20	Very fine sandy loam	ML, CL, CL-ML	A-4	0	0	100	90-100	85-100	60-80	15-30	NP-10
	20-60	Very fine sandy loam	CL-ML, CL, ML	A-4	0	0	100	90-100	85-100	60-80	15-30	NP-10
DbB:												
Dailey---------	0-14	Loamy sand	SM	A-2, A-4	0	0	100	100	70-95	20-40	0-20	NP
	14-60	Loamy sand	SM, SP-SM	A-2, A-3	0	0	100	95-100	75-95	5-35	0-20	NP
DuC:												
Duda-----------	0-7	Loamy sand	SC-SM, SM	A-2	0	0	100	100	50-75	15-40	15-25	NP-5
	7-28	Fine sand	SM, SC-SM	A-1, A-2	0	0	100	100	45-75	15-35	15-25	NP-5
	28-60	Weathered bedrock			---	---	---	---	---	---	---	---
Tassel---------	0-5	Loamy sand	SM, SC, SC-SM	A-2	0	0	95-100	90-100	65-95	15-35	15-25	NP-8
	5-16	Fine sandy loam	CL-ML, ML, SC, SM	A-2, A-4	0	0	95-100	80-100	60-95	25-60	15-25	NP-8
	16-60	Weathered bedrock			---	---	---	---	---	---	---	---
Fu:												
Fluvaquents----	0-6	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-100	60-95	25-35	5-15
	6-60	Variable			---	---	---	---	---	---	---	---
Gb:												
Gannett, OVERWASH------	0-4	Silt loam	CL-ML	A-4	0	0	100	100	95-100	50-65	15-30	NP-13
	4-60	Fine sandy loam	CL, ML, SC, SM	A-2, A-4, A-6	0	0	100	100	95-100	30-65	15-35	NP-15
Gf:												
Gibbon---------	0-9	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	85-100	70-90	20-30	2-10
	9-27	Silt loam	CL	A-6	0	0	100	100	90-100	80-90	25-38	12-20
	27-60	Stratified very fine sandy loam to silt loam	CL, ML, SC, SM	A-4	0	0	100	100	70-95	35-90	15-25	NP-8
Gh:												
Goshen---------	0-10	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	95-100	90-100	70-95	20-40	3-20
	10-32	Silty clay loam	CL	A-4, A-6	0	0	100	100	90-100	85-95	25-40	8-22
	32-60	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	90-100	70-95	20-35	4-15
HaB:												
Haxtun---------	0-13	Loamy fine sand	SM	A-2	0	0	95-100	80-100	50-75	15-30	---	NP
	13-19	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	95-100	80-100	65-85	30-55	20-30	NP-10
	19-36	Sandy clay loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0	0	95-100	80-100	65-85	30-55	20-30	NP-10
	36-60	Very fine sandy loam	CL, CL-ML	A-4, A-6	0	0	95-100	80-100	80-100	60-85	25-35	5-15
HdB:												
Haxtun---------	0-11	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	95-100	80-100	60-95	25-55	15-25	NP-5
	11-36	Loam	SM, SC-SM, ML, CL-ML	A-2, A-4	0	0	95-100	80-100	65-85	30-55	20-30	NP-10
	36-50	Very fine sandy loam	CL-ML, CL	A-4, A-6	0	0	95-100	80-100	80-100	60-85	25-35	5-15
	50-60	Loamy very fine sand	CL-ML, ML, SC-SM, SM	A-4	0	0	95-100	80-100	70-95	35-65	15-25	NP-5
INT:												
Aquolls--------	0-72	Variable			---	---	---	---	---	---	---	---
JaB:												
Jayem----------	0-12	Loamy fine sand	SM	A-2	0	0	100	85-100	75-85	25-35	15-25	NP-5
	12-24	Fine sandy loam	ML, SM	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
	24-60	Fine sandy loam	SM, ML	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
JaC:												
Jayem----------	0-12	Loamy fine sand	SM	A-2	0	0	100	85-100	75-85	25-35	15-25	NP-5
	12-24	Fine sandy loam	ML, SM	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
	24-60	Fine sandy loam	SM, ML	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
JcB:												
Jayem----------	0-11	Fine sandy loam	SM	A-2, A-4	0	0	100	85-100	55-95	25-50	15-25	NP-5
	11-21	Fine sandy loam	SM, ML	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
	21-42	Fine sandy loam	SM, ML	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
	42-60	Loamy fine sand	SM	A-2	0	0	100	85-100	65-80	25-35	---	NP
JcC:												
Jayem----------	0-11	Fine sandy loam	SM	A-2, A-4	0	0	100	85-100	55-95	25-50	15-25	NP-5
	11-21	Fine sandy loam	ML, SM	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
	21-42	Fine sandy loam	ML, SM	A-2, A-4	0	0	100	85-100	70-95	25-60	15-25	NP-5
	42-60	Loamy fine sand	SM	A-2	0	0	100	85-100	65-80	25-35	---	NP
KeB:												
Keith----------	0-6	Silt loam	ML, CL-ML, CL	A-4	0	0	100	100	85-100	80-100	20-35	2-10
	6-23	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-100	30-45	10-25
	23-60	Silt loam	CL-ML, ML, CL	A-4, A-6	0	0	100	100	90-100	80-100	20-35	2-12

ENGINEERING INDEX PROPERTIES--Continued
Chase County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
KeC2:												
Keith----------	0-6	Silt loam	CL-ML, CL, ML	A-4	0	0	100	100	85-100	80-100	20-35	2-10
	6-23	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-100	30-45	10-25
	23-60	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	90-100	80-100	20-35	2-12
Ku:												
Kuma----------	0-10	Silt loam	ML	A-4	0	0	100	95-100	90-100	75-95	25-35	NP-10
	10-35	Silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	85-95	30-45	10-25
	35-60	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	95-100	90-100	70-95	20-40	NP-20
KuB:												
Kuma----------	0-10	Silt loam	ML	A-4	0	0	100	95-100	90-100	75-95	25-35	NP-10
	10-35	Silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	85-95	30-45	10-25
	35-60	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	70-95	20-40	NP-20
KuC:												
Kuma----------	0-10	Silt loam	ML	A-4	0	0	100	95-100	90-100	75-95	25-35	NP-10
	10-35	Silt loam	CL	A-6, A-7	0	0	100	95-100	90-100	85-95	30-45	10-25
	35-60	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	95-100	95-100	90-100	70-95	20-40	NP-20
LaB:												
Laird----------	0-10	Fine sandy loam	SC-SM, SM	A-4	0	0	100	90-100	70-85	35-50	15-25	NP-10
	10-26	Very fine sandy loam	CL-ML, ML, SM, SC-SM	A-4	0	0	100	100	70-90	40-65	20-30	NP-10
	26-60	Fine sandy loam	SM	A-2, A-4	0	0	100	90-100	70-80	25-45	15-20	NP-5
LD:												
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M-W:												
Miscellaneous Water---------	---	---	---	---	---	---	---	---	---	---	---	---
Ma:												
Mace----------	0-5	Silt loam	CL, ML, CL-ML	A-4, A-6	0	0	100	100	85-100	60-90	20-40	2-15
	5-18	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	80-95	30-50	15-25
	18-23	Silt loam	ML, CL	A-4, A-6	0	0	100	100	85-100	80-90	25-40	2-15
	23-30	Silt loam	ML, CL	A-4, A-6	0	0-5	95-100	95-100	70-100	50-90	25-40	2-15
	30-80	Weathered bedrock			---	---	---	---	---	---	---	---
MaB:												
Mace----------	0-5	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	85-100	60-90	20-40	2-15
	5-18	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	80-95	30-50	15-25
	18-23	Silt loam	ML, CL	A-4, A-6	0	0	100	100	85-100	80-90	25-40	2-15
	23-28	Silt loam	CL, ML	A-6, A-4	0	0-5	95-100	95-100	70-100	50-90	25-40	2-15
	28-80	Weathered bedrock			---	---	---	---	---	---	---	---
Mc:												
Mace----------	0-6	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	85-100	60-90	20-40	2-15
	6-18	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	80-95	30-50	15-25
	18-24	Silt loam	ML, CL	A-4, A-6	0	0	100	100	85-100	80-90	25-40	2-15
	24-34	Silt loam	CL, ML	A-4, A-6	0	0-5	95-100	95-100	70-100	50-90	25-40	2-15
	34-60	Weathered bedrock			---	---	---	---	---	---	---	---
Alliance-------	0-12	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	90-100	70-90	20-40	2-15
	12-18	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	70-100	30-50	10-25
	18-21	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	95-100	60-90	20-40	2-15
	21-45	Very fine sandy loam	SM, SC, ML, CL-ML	A-4	0	0-5	85-100	85-100	70-100	40-90	15-30	NP-10
	45-60	Weathered bedrock			---	---	---	---	---	---	---	---
McB:												
Mace----------	0-6	Silt loam	CL-ML, CL, ML	A-4, A-6	0	0	100	100	85-100	60-90	20-40	2-15
	6-18	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	80-95	30-50	15-25
	18-24	Silt loam	ML, CL	A-4, A-6	0	0	100	100	85-100	80-90	25-40	2-15
	24-34	Very fine sandy loam	CL, ML	A-4, A-6	0	0-5	95-100	95-100	70-100	50-90	25-40	2-15
	34-60	Weathered bedrock			---	---	---	---	---	---	---	---
Alliance-------	0-12	Silt loam	ML, CL-ML, CL	A-4, A-6	0	0	100	100	90-100	70-90	20-40	2-15
	12-18	Silty clay loam	CL	A-6, A-7	0	0	100	100	90-100	70-100	30-50	10-25
	18-21	Silt loam	ML, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	60-90	20-40	2-15
	21-45	Very fine sandy loam	CL-ML, SC, SM, ML	A-4	0	0-5	85-100	85-100	70-100	40-90	15-30	NP-10
	45-60	Weathered bedrock			---	---	---	---	---	---	---	---
Mm:												
Mccash---------	0-16	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	50-80	20-30	NP-7
	16-46	Very fine sandy loam	ML	A-4	0	0	100	100	90-100	80-90	20-30	NP-7
	46-60	Very fine sandy loam	ML, SM	A-4	0	0	100	100	90-100	40-65	20-30	NP-7
Mo:												
Mccook---------	0-10	Silt loam	CL-ML, ML, CL	A-4, A-6, A-7	0	0	100	100	90-100	85-100	20-50	3-25
	10-60	Silt loam	ML, CL-ML, CL	A-4, A-6, A-7	0	0	100	100	80-100	50-100	15-45	NP-15
Mp:												
Mccook---------	0-15	Silt loam	CL-ML, ML, CL	A-4, A-6	0	0	100	100	90-100	70-95	20-40	2-20
	15-60	Silt loam	CL, ML, CL-ML	A-4	0	0	100	100	95-100	80-100	15-25	NP-10
MtB:												
Mccook---------	0-15	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	90-100	70-95	20-40	2-20
	15-60	Silt loam	CL-ML, CL, ML	A-4	0	0	100	100	95-100	80-100	15-25	NP-10

ENGINEERING INDEX PROPERTIES--Continued
Chase County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
OaF:												
Otero----------	0-7	Loam	ML	A-4	0	0	100	95-100	85-95	60-80	20-30	NP-5
	7-60	Very fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	95-100	85-95	40-60	---	NP-5
Canyon---------	0-10	Loam	CL-ML, ML, SM, CL	A-4	0	0-5	90-100	75-100	50-95	40-75	15-30	2-10
	10-17	Loam	ML, SC, SM, GM	A-2, A-4, A-6	0	0-5	60-100	50-100	40-95	30-75	20-40	NP-15
	17-60	Weathered bedrock			---	---	---	---	---	---	---	---
OaG:												
Sulco----------	0-7	Loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	80-100	60-90	20-35	NP-15
	7-60	Loam	CL-ML, ML, CL	A-4	0	0	100	100	85-100	50-90	20-30	NP-10
Canyon---------	0-10	Loam	CL-ML, CL, SM, ML	A-4	0	0-5	90-100	75-100	50-95	40-75	15-30	2-10
	10-17	Loam	GM, ML, SC, SM	A-2, A-4, A-6	0	0-5	60-100	50-100	40-95	30-75	20-40	NP-15
	17-60	Weathered bedrock			---	---	---	---	---	---	---	---
Rs:												
Rosebud--------	0-5	Loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	90-100	80-100	55-90	24-34	3-12
	5-15	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-95	30-50	12-26
	15-34	Loam	ML, CL-ML, SC-SM, SM	A-2, A-4, A-6	0	0-5	95-100	80-100	60-100	30-90	20-40	2-12
	34-60	Weathered bedrock			---	---	---	---	---	---	---	---
RsB:												
Rosebud--------	0-5	Loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	90-100	80-100	55-90	24-34	3-12
	5-15	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-95	30-50	12-26
	15-34	Sandy loam	SM, SC-SM, ML, CL-ML	A-2, A-4, A-6	0	0-5	95-100	80-100	60-100	30-90	20-40	2-12
	34-60	Weathered bedrock			---	---	---	---	---	---	---	---
Rt:												
Rosebud--------	0-6	Loam	CL-ML, ML, CL	A-4, A-6	0	0	95-100	90-100	80-100	55-90	24-34	3-12
	6-15	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-95	30-50	12-26
	15-30	Fine sandy loam	SM, SC-SM, CL-ML, ML	A-2, A-4, A-6	0	0-5	95-100	80-100	60-100	30-90	20-40	2-12
	30-60	Weathered bedrock			---	---	---	---	---	---	---	---
Canyon---------	0-11	Loam	ML, CL, CL-ML, SM	A-4	0	0-5	90-100	75-100	50-95	40-75	15-30	2-10
	11-14	Loam	SM, GM, SC, ML	A-2, A-4, A-6	0	0-5	60-100	50-100	40-95	30-75	20-40	NP-15
	14-60	Weathered bedrock			---	---	---	---	---	---	---	---
RtB:												
Rosebud--------	0-6	Loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	90-100	80-100	55-90	24-34	3-12
	6-15	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-95	30-50	12-26
	15-30	Very fine sandy loam	ML, SC-SM, SM, CL-ML	A-2, A-4, A-6	0	0-5	95-100	80-100	60-100	30-90	20-40	2-12
	30-60	Weathered bedrock			---	---	---	---	---	---	---	---
Canyon---------	0-11	Loam	CL-ML, ML, SM, CL	A-4	0	0-5	90-100	75-100	50-95	40-75	15-30	2-10
	11-14	Loam	ML, SC, SM, GM	A-2, A-4, A-6	0	0-5	60-100	50-100	40-95	30-75	20-40	NP-15
	14-60	Weathered bedrock			---	---	---	---	---	---	---	---
RtC:												
Rosebud--------	0-6	Loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	90-100	80-100	55-90	24-34	3-12
	6-15	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-95	30-50	12-26
	15-30	Sandy loam	CL-ML, SM, ML, SC-SM	A-2, A-4, A-6	0	0-5	95-100	80-100	60-100	30-90	20-40	2-12
	30-60	Weathered bedrock			---	---	---	---	---	---	---	---
Canyon---------	0-11	Loam	CL-ML, ML, SM, CL	A-4	0	0-5	90-100	75-100	50-95	40-75	15-30	2-10
	11-14	Loam	ML, SM, GM, SC	A-2, A-4, A-6	0	0-5	60-100	50-100	40-95	30-75	20-40	NP-15
	14-60	Weathered bedrock			---	---	---	---	---	---	---	---
RtD2:												
Rosebud--------	0-6	Loam	CL, CL-ML, ML	A-4, A-6	0	0	95-100	90-100	80-100	55-90	24-34	3-12
	6-15	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	60-95	30-50	12-26
	15-30	Sandy loam	ML, CL-ML, SC-SM, SM	A-2, A-4, A-6	0	0-5	95-100	80-100	60-100	30-90	20-40	2-12
	30-60	Weathered bedrock			---	---	---	---	---	---	---	---
Canyon---------	0-11	Loam	SM, CL, ML, CL-ML	A-4	0	0-5	90-100	75-100	50-95	40-75	15-30	2-10
	11-14	Loam	SC, SM, ML, GM	A-2, A-4, A-6	0	0-5	60-100	50-100	40-95	30-75	20-40	NP-15
	14-60	Weathered bedrock			---	---	---	---	---	---	---	---

ENGINEERING INDEX PROPERTIES--Continued
Chase County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
SaC:												
Sarben---------	0-6	Loamy very fine sand	ML, SM	A-2, A-4	0	0	100	100	90-100	30-70	15-30	NP-10
	6-17	Loamy very fine sand	SM, ML	A-4	0	0	100	100	90-100	40-65	15-30	NP-10
	17-27	Loamy very fine sand	ML, SM	A-4	0	0	100	100	90-100	40-65	15-30	NP-10
	27-60	Loamy very fine sand	ML, SM	A-4	0	0	100	100	90-100	40-65	15-30	NP-10
SaD:												
Sarben---------	0-6	Loamy very fine sand	ML, SM	A-2, A-4	0	0	100	100	90-100	30-70	15-30	NP-10
	6-17	Loamy very fine sand	ML, SM	A-4	0	0	100	100	90-100	40-65	15-30	NP-10
	17-27	Loamy very fine sand	ML, SM	A-4	0	0	100	100	90-100	40-65	15-30	NP-10
	27-60	Loamy very fine sand	SM, ML	A-4	0	0	100	100	90-100	40-65	15-30	NP-10
SbB:												
Satanta--------	0-9	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	85-95	50-65	0-25	NP-5
	9-23	Clay loam	CL, SC	A-6, A-7	0	0	100	95-100	75-100	45-75	30-45	10-20
	23-60	Very fine sandy loam	SM, ML	A-4	0	0	100	95-100	70-95	40-60	20-30	NP-5
SbC:												
Satanta--------	0-9	Very fine sandy loam	ML, CL-ML	A-4	0	0	100	95-100	85-95	50-65	0-25	NP-5
	9-23	Clay loam	CL, SC	A-6, A-7	0	0	100	95-100	75-100	45-75	30-45	10-20
	23-60	Very fine sandy loam	ML, SM	A-4	0	0	100	95-100	70-95	40-60	20-30	NP-5
Sc:												
Lodgepole------	0-4	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	90-100	70-95	20-40	3-20
	4-32	Silty clay	CH	A-7	0	0	100	100	90-100	85-95	50-65	25-40
	32-60	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	90-100	60-90	20-35	3-10
TaB:												
Tassel---------	0-6	Loamy sand	SC, SM, SC-SM	A-2	0	0	95-100	90-100	65-95	15-35	15-25	NP-8
	6-16	Fine sandy loam	ML, SC, CL-ML, SM	A-2, A-4	0	0	95-100	80-100	60-95	25-60	15-25	NP-8
	16-60	Weathered bedrock			---	---	---	---	---	---	---	---
Duda-----------	0-4	Loamy sand	SM, SC-SM	A-2	0	0	100	100	50-75	15-40	15-25	NP-5
	4-30	Sand	SM, SC-SM	A-1, A-2	0	0	100	100	45-75	15-35	15-25	NP-5
	30-60	Weathered bedrock			---	---	---	---	---	---	---	---
TaF:												
Tassel---------	0-6	Loamy sand	SM, SC-SM, SC	A-2	0	0	95-100	90-100	65-95	15-35	15-25	NP-8
	6-16	Fine sandy loam	ML, CL-ML, SM, SC	A-2, A-4	0	0	95-100	80-100	60-95	25-60	15-25	NP-8
	16-60	Weathered bedrock			---	---	---	---	---	---	---	---
Duda-----------	0-4	Loamy sand	SC-SM, SM	A-2	0	0	100	100	50-75	15-40	15-25	NP-5
	4-30	Sand	SM, SC-SM	A-1, A-2	0	0	100	100	45-75	15-35	15-25	NP-5
	30-60	Weathered bedrock			---	---	---	---	---	---	---	---
UsC2:												
Ulysses--------	0-5	Silt loam	ML, CL-ML, CL	A-4	0	0	100	100	90-100	70-90	20-30	NP-10
	5-36	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-100	50-85	25-40	4-15
	36-60	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-100	50-85	25-40	4-15
UsD2:												
Ulysses--------	0-5	Silt loam	CL, CL-ML, ML	A-4	0	0	100	100	90-100	70-90	20-30	NP-10
	5-36	Silt loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-100	50-85	25-40	4-15
	36-60	Silt loam	CL-ML, CL	A-4, A-6	0	0	100	100	85-100	50-85	25-40	4-15
VaF:												
Valent---------	0-4	Sand	SM, SP-SM	A-2, A-3	0	0	100	100	60-70	5-20	---	NP
	4-60	Sand	SP, SP-SM	A-3	0	0	100	95-100	60-70	0-10	---	NP
VaG:												
Valent---------	0-4	Sand	SP-SM, SM	A-2, A-3	0	0	100	100	60-70	5-20	---	NP
	4-60	Sand	SP-SM, SP	A-3	0	0	100	95-100	60-70	0-10	---	NP
Valent---------	0-4	Sand	SM, SP-SM	A-2, A-3	0	0	100	100	60-70	5-20	---	NP
	4-60	Sand	SP-SM, SP	A-3	0	0	100	95-100	60-70	0-10	---	NP
VcB:												
Valent---------	0-8	Loamy sand	SP-SM, SM	A-2	0	0	100	100	70-95	10-30	15-25	NP-5
	8-60	Sand	SP, SP-SM	A-3	0	0	100	95-100	60-70	0-10	---	NP
VcD:												
Valent---------	0-6	Loamy sand	SP-SM, SM	A-2	0	0	100	100	70-95	10-30	15-25	NP-5
	6-60	Sand	SP-SM, SP	A-3	0	0	100	95-100	60-70	0-10	---	NP
VeB:												
Vetal----------	0-9	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	95-100	60-100	30-55	20-30	NP-10
	9-48	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	95-100	60-100	30-65	20-30	NP-10
	48-60	Fine sandy loam	ML, CL-ML, SC-SM, SM	A-2, A-4	0	0	100	90-100	60-100	30-65	20-30	NP-10
W:												
Water----------	---	---	---	---	---	---	---	---	---	---	---	---

ENGINEERING INDEX PROPERTIES--Continued
Chase County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
Wa:												
Wann	0-12	Fine sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	95-100	70-100	30-50	15-25	NP-5
	12-26	Fine sandy loam	SM, SC-SM	A-2, A-4	0	0	95-100	75-100	60-100	20-50	15-25	NP-5
	26-60	Stratified very fine sandy loam to fine sand to coarse sand	SM	A-2, A-4	0	0	95-100	95-100	70-100	15-40	15-20	NP-3
WoB:												
Woodly	0-9	Loamy fine sand	SC-SM, SM	A-2	0	0	100	100	95-100	15-35	15-25	NP-5
	9-24	Sandy clay loam	SC, CL	A-4, A-6	0	0	100	100	90-100	35-65	30-40	8-15
	24-60	Fine sandy loam	SM, SC-SM	A-2, A-4	0	0	100	100	85-100	25-50	15-30	NP-7
WpB:												
Woodly	0-16	Fine sandy loam	SM	A-4	0	0	100	100	90-100	40-50	20-30	NP-7
	16-38	Sandy clay loam	CL, SC	A-4, A-6	0	0	100	100	90-100	35-65	30-40	8-15
	38-60	Sandy loam	SM, SC-SM	A-2, A-4	0	0	100	100	85-100	25-50	15-30	NP-7

PHYSICAL PROPERTIES OF THE SOILS
Chase County, Nebraska: Published

Physical Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (K-sat). The estimates in the table indicate the rate of water movement, in micrometers per second (um/sec), when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in this table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are as follows:

1. Coarse sands, sands, fine sands, and very fine sands.

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Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										K	Kf	T		
	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					

2. Loamy coarse sands, loamy sands, loamy fine sands, loamy very fine sands, ash material, and sapric soil material.

3. Coarse sandy loams, sandy loams, fine sandy loams, and very fine sandy loams.

4L. Calcareous loams, silt loams, clay loams, and silty clay loams.

4. Clays, silty clays, noncalcareous clay loams, and silty clay loams that are more than 35 percent clay.

5. Noncalcareous loams and silt loams that are less than 20 percent clay and sandy clay loams, sandy clays, and hemic soil material.

6. Noncalcareous loams and silt loams that are more than 20 percent clay and noncalcareous clay loams that are less than 35 percent clay.

7. Silts, noncalcareous silty clay loams that are less than 35 percent clay, and fibric soil material.

8. Soils that are not subject to wind erosion because of coarse fragments on the surface or because of surface wetness.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

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Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										K	Kf	T		
	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					
Ac:														
Alliance-----	0-9	14	69	15-20	1.20-1.40	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.32	.32	4	5	56
	9-17	7	63	25-35	1.15-1.30	0.20-2.00	0.18-0.20	3.0-5.9	0.5-1.0	.43	.43			
	17-24	11	69	15-25	1.20-1.40	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
	24-50	59	26	10-20	1.30-1.60	0.60-2.00	0.15-0.18	0.0-2.9	0.5-1.0	.24	.24			
	50-60			---	---	0.20-0.60	---	---	---	---	---			
AED:														
Arents, Earthen Dam-	---			---	---	---	---	---	---	---	---	-	---	---
Af:														
Altvan-------	0-7	42	38	16-23	1.20-1.40	0.60-2.00	0.20-0.22	0.0-2.9	1.0-2.0	.28	.28	4	5	56
	7-21	35	38	20-35	1.30-1.50	0.20-2.00	0.17-0.19	3.0-5.9	0.5-2.0	.37	.37			
	21-26	41	37	18-25	1.25-1.50	0.60-2.00	0.15-0.19	0.0-2.9	0.5-1.0	.37	.37			
	26-60	91	6	0-5	1.50-1.70	20.00-20.00	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
AfB:														
Altvan-------	0-7	42	38	16-23	1.20-1.40	0.60-2.00	0.20-0.22	0.0-2.9	1.0-2.0	.28	.28	4	5	56
	7-21	35	38	20-35	1.30-1.50	0.20-2.00	0.17-0.19	3.0-5.9	0.5-2.0	.37	.37			
	21-26	41	37	18-25	1.25-1.50	0.60-2.00	0.15-0.19	0.0-2.9	0.5-1.0	.37	.37			
	26-60	91	6	0-5	1.50-1.70	20.00-20.00	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
AfC:														
Altvan-------	0-7	42	38	16-23	1.20-1.40	0.60-2.00	0.20-0.22	0.0-2.9	1.0-2.0	.28	.28	4	5	56
	7-21	35	38	20-35	1.30-1.50	0.20-2.00	0.17-0.19	3.0-5.9	0.5-2.0	.37	.37			
	21-26	41	37	18-25	1.25-1.50	0.60-2.00	0.15-0.19	0.0-2.9	0.5-1.0	.37	.37			
	26-60	91	6	0-5	1.50-1.70	20.00-20.00	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
AsB:														
Ascalon------	0-10	65	27	5-12	1.40-1.50	0.60-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.20	.20	5	3	86
	10-22	57	18	20-30	1.40-1.50	0.20-2.00	0.13-0.15	3.0-5.9	0.5-2.0	.24	.24			
	22-28	61	19	15-25	1.40-1.50	0.60-6.00	0.11-0.15	0.0-2.9	0.5-1.0	.24	.24			
	28-60	60	34	2-10	1.45-1.55	2.00-6.00	0.06-0.13	0.0-2.9	0.2-0.8	.17	.17			
AsC:														
Ascalon------	0-10	65	27	5-12	1.40-1.50	2.00-6.00	0.11-0.15	0.0-2.9	1.0-3.0	.20	.20	5	3	86
	10-22	57	18	20-30	1.40-1.50	0.20-2.00	0.13-0.15	3.0-5.9	0.5-2.0	.24	.24			
	22-28	61	19	15-25	1.40-1.50	0.60-6.00	0.11-0.15	0.0-2.9	0.5-1.0	.24	.24			
	28-60	87	7	2-10	1.45-1.55	2.00-6.00	0.06-0.13	0.0-2.9	0.2-0.8	.17	.17			
BeB:														
Blanche------	0-11	64	25	6-16	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	1.0-2.0	.32	.32	3	3	86
	11-26	66	20	9-18	1.30-1.50	2.00-6.00	0.15-0.17	0.0-2.9	0.5-2.0	.24	.24			
	26-34	66	20	9-18	1.30-1.60	2.00-6.00	0.15-0.17	0.0-2.9	0.5-1.0	.24	.24			
	34-60			---	---	0.06-0.20	---	---	---	---	---			
Bg:														
Bridget------	0-12	14	71	10-20	1.20-1.40	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	12-21	21	68	5-18	1.40-1.60	0.60-2.00	0.16-0.24	0.0-2.9	0.5-2.0	.43	.43			
	21-60	61	28	5-18	1.40-1.60	0.60-2.00	0.16-0.24	0.0-2.9	0.5-1.0	.43	.43			
BgB:														
Bridget------	0-12	14	71	10-20	1.20-1.40	0.60-2.00	0.18-0.24	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	12-21	21	68	5-18	1.40-1.60	0.60-2.00	0.16-0.24	0.0-2.9	0.5-2.0	.43	.43			
	21-60	61	28	5-18	1.40-1.60	0.60-2.00	0.16-0.24	0.0-2.9	0.5-1.0	.43	.43			
BuC:														
Bushman------	0-7	62	24	10-18	1.35-1.50	2.00-6.00	0.14-0.17	0.0-2.9	1.0-2.0	.32	.32	5	3	86
	7-60	62	24	10-18	1.35-1.50	2.00-6.00	0.10-0.17	0.0-2.9	0.5-1.0	.28	.28			
Cb:														
Caruso-------	0-12	40	38	18-27	1.20-1.35	0.60-2.00	0.19-0.23	0.0-2.9	1.0-3.0	.28	.28	5	4L	86
	12-60	38	36	18-35	1.20-1.35	0.20-2.00	0.16-0.22	0.0-2.9	0.5-1.0	.28	.28			
ChD:														
Sulco--------	0-4	21	68	5-17	1.20-1.40	0.60-2.00	0.20-0.23	0.0-2.9	0.5-2.0	.43	.43	5	4L	86
	4-60	14	73	8-17	1.20-1.40	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
ChF:														
Sulco--------	0-4	21	68	5-17	1.20-1.40	0.60-2.00	0.20-0.23	0.0-2.9	0.5-2.0	.43	.43	5	4L	86
	4-60	14	73	8-17	1.20-1.40	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
ChG:														
Sulco--------	0-4	21	68	5-17	1.20-1.40	0.60-2.00	0.20-0.23	0.0-2.9	0.5-2.0	.43	.43	5	4L	86
	4-60	14	73	8-17	1.20-1.40	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
CrB:														
Creighton----	0-12	64	26	5-15	1.25-1.35	0.60-2.00	0.15-0.17	0.0-2.9	1.0-3.0	.32	.32	5	3	86
	12-20	63	25	5-18	1.30-1.40	0.60-2.00	0.14-0.16	0.0-2.9	0.5-1.0	.43	.43			
	20-60	63	25	5-18	1.30-1.40	0.60-2.00	0.15-0.17	0.0-2.9	0.1-0.5	.43	.43			
CrC:														
Creighton----	0-12	64	26	5-15	1.25-1.35	0.60-2.00	0.15-0.17	0.0-2.9	1.0-3.0	.32	.32	5	3	86
	12-20	63	25	5-18	1.30-1.40	0.60-2.00	0.14-0.16	0.0-2.9	0.5-1.0	.43	.43			
	20-60	63	25	5-18	1.30-1.40	0.60-2.00	0.15-0.17	0.0-2.9	0.1-0.5	.43	.43			
CrD:														
Creighton----	0-12	64	26	5-15	1.25-1.35	0.60-2.00	0.15-0.17	0.0-2.9	1.0-3.0	.32	.32	5	3	86
	12-20	63	25	5-18	1.30-1.40	0.60-2.00	0.14-0.16	0.0-2.9	0.5-1.0	.43	.43			
	20-60	63	25	5-18	1.30-1.40	0.60-2.00	0.15-0.17	0.0-2.9	0.1-0.5	.43	.43			
DbB:														
Dailey-------	0-14	80	16	2-5	1.70-1.85	6.00-20.00	0.07-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	14-60	80	16	2-5	1.75-1.95	6.00-20.00	0.04-0.07	0.0-2.9	0.5-1.0	.10	.10			
DuC:														
Duda---------	0-7	84	9	3-10	1.15-1.25	2.00-20.00	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	3	2	134
	7-28	92	1	3-10	1.45-1.60	2.00-20.00	0.08-0.10	0.0-2.9	0.0-1.0	.17	.17			
	28-60			---	---	0.20-2.00	---	---	---	---	---			
Tassel-------	0-5	79	16	2-8	1.60-1.80	6.00-20.00	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	2	2	134
	5-16	65	27	5-12	1.40-1.70	2.00-6.00	0.12-0.18	0.0-2.9	0.5-2.0	.28	.28			
	16-60			---	---	0.20-0.60	---	---	---	---	---			

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Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										K	Kf	T		
	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					
Fu:														
Fluvaquents--	0-6	24	50	18-35	1.10-1.65	0.20-6.00	0.16-0.23	0.0-2.9	2.0-8.0	.28	.28	5	8	0
	6-60			---	---	0.00-20.00	---	---	---	---	---			
Gb:														
Gannett, OVERWASH----	0-4	32	56	5-18	1.20-1.45	0.60-6.00	0.20-0.23	0.0-2.9	4.0-12	.28	.28	4	8	0
	4-60	62	26	5-18	1.20-1.50	2.00-6.00	0.13-0.19	0.0-2.9	0.5-1.0	.20	.20			
Gf:														
Gibbon-------	0-9	10	68	20-25	1.40-1.60	0.60-2.00	0.21-0.23	0.0-2.9	2.0-4.0	.32	.32	5	4L	86
	9-27	9	67	20-27	1.30-1.50	0.60-2.00	0.18-0.22	0.0-2.9	0.5-1.0	.32	.32			
	27-60	58	22	15-25	1.50-1.70	0.60-6.00	0.16-0.20	0.0-2.9	0.5-1.0	.32	.32			
Gh:														
Goshen-------	0-10	11	68	16-25	1.20-1.40	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	10-32	7	63	25-35	1.30-1.50	0.20-2.00	0.17-0.22	3.0-5.9	0.5-1.0	.43	.43			
	32-60	11	68	15-27	1.20-1.40	0.60-2.00	0.17-0.22	0.0-2.9	0.0-0.5	.43	.43			
HaB:														
Haxtun-------	0-13	87	7	3-10	1.40-1.50	6.00-20.00	0.07-0.11	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	13-19	68	29	6-18	1.40-1.50	0.20-6.00	0.11-0.14	0.0-2.9	0.5-3.0	.17	.17			
	19-36	60	18	15-30	1.40-1.50	0.20-6.00	0.11-0.14	0.0-2.9	0.5-3.0	.17	.17			
	36-60	55	19	18-35	1.30-1.40	0.20-2.00	0.18-0.20	3.0-5.9	0.5-2.0	.20	.20			
HdB:														
Haxtun-------	0-11	68	20	6-18	1.35-1.45	2.00-6.00	0.11-0.14	0.0-2.9	2.0-4.0	.20	.20	5	3	86
	11-36	40	38	15-30	1.40-1.50	0.20-6.00	0.11-0.14	0.0-2.9	0.5-3.0	.17	.17			
	36-50	60	26	10-27	1.30-1.40	0.20-2.00	0.18-0.20	3.0-5.9	0.5-2.0	.20	.20			
	50-60	79	12	3-15	1.40-1.50	0.60-6.00	0.10-0.14	0.0-2.9	0.5-1.0	.20	.20			
INT:														
Aquolls------	0-72			---	---	---	---	---	---	---	---	-	---	0
JaB:														
Jayem--------	0-12	78	16	3-8	1.35-1.45	2.00-6.00	0.08-0.11	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	12-24	62	26	5-18	1.30-1.45	2.00-6.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.32			
	24-60	62	26	5-18	1.30-1.50	2.00-6.00	0.13-0.15	0.0-2.9	0.1-0.5	.32	.32			
JaC:														
Jayem--------	0-12	78	16	3-8	1.35-1.45	2.00-6.00	0.08-0.11	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	12-24	62	26	5-18	1.30-1.45	2.00-6.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.32			
	24-60	62	26	5-18	1.30-1.50	2.00-6.00	0.13-0.15	0.0-2.9	0.1-0.5	.32	.32			
JcB:														
Jayem--------	0-11	64	26	5-15	1.20-1.35	2.00-6.00	0.13-0.15	0.0-2.9	1.0-3.0	.20	.20	5	3	86
	11-21	62	26	5-18	1.30-1.45	2.00-6.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.32			
	21-42	62	26	5-18	1.30-1.50	2.00-6.00	0.13-0.15	0.0-2.9	0.1-0.5	.32	.32			
	42-60	87	7	3-10	1.45-1.60	2.00-6.00	0.07-0.09	0.0-2.9	0.1-0.5	.24	.24			
JcC:														
Jayem--------	0-11	64	26	5-15	1.20-1.35	2.00-6.00	0.13-0.15	0.0-2.9	1.0-3.0	.20	.20	5	3	86
	11-21	62	26	5-18	1.30-1.45	2.00-6.00	0.13-0.15	0.0-2.9	0.5-1.0	.32	.32			
	21-42	62	26	5-18	1.30-1.50	2.00-6.00	0.13-0.15	0.0-2.9	0.1-0.5	.32	.32			
	42-60	87	7	3-10	1.45-1.60	2.00-6.00	0.07-0.09	0.0-2.9	0.1-0.5	.24	.24			
KeB:														
Keith--------	0-6	14	69	14-20	1.20-1.30	0.60-2.00	0.20-0.23	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	6-23	7	65	20-35	1.10-1.20	0.20-2.00	0.18-0.22	3.0-5.9	0.5-1.0	.43	.43			
	23-60	14	72	8-20	1.30-1.40	0.60-2.00	0.20-0.22	0.0-2.9	0.0-0.5	.43	.43			
KeC2:														
Keith--------	0-6	14	69	14-20	1.20-1.30	0.60-2.00	0.20-0.23	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	6-23	7	65	20-35	1.10-1.20	0.20-2.00	0.18-0.22	3.0-5.9	0.5-1.0	.43	.43			
	23-60	14	72	8-20	1.30-1.40	0.60-2.00	0.20-0.22	0.0-2.9	0.0-0.5	.43	.43			
Ku:														
Kuma---------	0-10	14	73	15-27	1.20-1.30	0.60-2.00	0.18-0.21	0.0-2.9	2.0-4.0	.32	.32	5	5	56
	10-35	9	68	18-35	1.25-1.35	0.20-2.00	0.18-0.21	3.0-5.9	1.0-3.0	.37	.37			
	35-60	14	72	10-30	1.40-1.50	0.60-2.00	0.16-0.18	0.0-2.9	0.5-1.0	.32	.32			
KuB:														
Kuma---------	0-10	14	73	15-27	1.20-1.30	0.60-2.00	0.18-0.21	0.0-2.9	2.0-4.0	.32	.32	5	5	56
	10-35	9	68	18-35	1.25-1.35	0.20-2.00	0.18-0.21	3.0-5.9	1.0-3.0	.37	.37			
	35-60	14	72	10-30	1.40-1.50	0.60-2.00	0.16-0.18	0.0-2.9	0.5-1.0	.32	.32			
KuC:														
Kuma---------	0-10	14	73	15-27	1.20-1.30	0.60-2.00	0.18-0.21	0.0-2.9	2.0-4.0	.32	.32	5	5	56
	10-35	9	68	18-35	1.25-1.35	0.20-2.00	0.18-0.21	3.0-5.9	1.0-3.0	.37	.37			
	35-60	14	72	10-30	1.40-1.50	0.60-2.00	0.16-0.18	0.0-2.9	0.5-1.0	.32	.32			
LaB:														
Laird--------	0-10	63	26	6-16	1.40-1.50	2.00-6.00	0.13-0.15	0.0-2.9	1.0-2.0	.20	.20	4	3	86
	10-26	62	24	10-18	1.40-1.50	2.00-6.00	0.10-0.13	0.0-2.9	0.5-1.0	.24	.24			
	26-60	64	27	5-14	1.40-1.50	5.95-19.98	0.08-0.10	0.0-2.9	0.5-1.0	.24	.24			
LD:														
	---			---	---	---	---	---	---	---	---	-	---	---
M-W:														
Miscellaneous Water-------	---			---	---	---	---	---	---	---	---	-	---	---
Ma:														
Mace---------	0-5	14	69	15-20	1.30-1.50	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	5	56
	5-18	7	65	20-35	1.30-1.70	0.20-0.60	0.16-0.22	3.0-5.9	0.5-2.0	.43	.43			
	18-23	10	68	18-27	1.30-1.50	0.60-2.00	0.18-0.22	0.0-2.9	0.5-2.0	.43	.43			
	23-30	14	69	10-25	1.30-1.40	0.60-2.00	0.15-0.20	0.0-2.9	0.5-1.0	.28	.28			
	30-80			---	---	0.06-0.20	---	---	---	---	---			

PHYSICAL PROPERTIES OF THE SOILS
Chase County, Nebraska: Published

(Single entries under "Sand and Silt" are a representative percentage are calculated using an algorithm. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										K	Kf	T		
	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					
MaB:														
Mace---------	0-5	14	69	15-20	1.30-1.50	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	5	56
	5-18	7	65	20-35	1.30-1.70	0.20-0.60	0.16-0.22	3.0-5.9	0.5-2.0	.43	.43			
	18-23	10	68	18-27	1.30-1.50	0.60-2.00	0.18-0.22	0.0-2.9	0.5-2.0	.43	.43			
	23-28	14	69	10-25	1.30-1.40	0.60-2.00	0.15-0.20	0.0-2.9	0.5-1.0	.28	.28			
	28-80			---	---	0.06-0.20	---	---	---	---	---			
Mc:														
Mace---------	0-6	14	69	15-20	1.30-1.50	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	5	56
	6-18	7	65	20-35	1.30-1.70	0.20-0.60	0.16-0.22	3.0-5.9	0.5-2.0	.43	.43			
	18-24	10	68	18-27	1.30-1.50	0.60-2.00	0.18-0.22	0.0-2.9	0.5-2.0	.43	.43			
	24-34	14	69	10-25	1.30-1.40	0.60-2.00	0.15-0.20	0.0-2.9	0.5-1.0	.28	.28			
	34-60			---	---	0.06-0.20	---	---	---	---	---			
Alliance-----	0-12	14	69	15-20	1.20-1.40	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.32	.32	4	5	56
	12-18	7	63	25-35	1.15-1.30	0.20-2.00	0.18-0.20	3.0-5.9	0.5-1.0	.43	.43			
	18-21	11	69	15-25	1.20-1.40	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
	21-45	59	26	10-20	1.30-1.60	0.60-2.00	0.15-0.18	0.0-2.9	0.5-1.0	.24	.24			
	45-60			---	---	0.20-0.60	---	---	---	---	---			
McB:														
Mace---------	0-6	14	69	15-20	1.30-1.50	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.32	.32	3	5	56
	6-18	7	65	20-35	1.30-1.70	0.20-0.60	0.16-0.22	3.0-5.9	0.5-2.0	.43	.43			
	18-24	10	68	18-27	1.30-1.50	0.60-2.00	0.18-0.22	0.0-2.9	0.5-2.0	.43	.43			
	24-34	59	23	10-25	1.30-1.40	0.60-2.00	0.15-0.20	0.0-2.9	0.5-1.0	.28	.28			
	34-60			---	---	0.06-0.20	---	---	---	---	---			
Alliance-----	0-12	14	69	15-20	1.20-1.40	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.32	.32	4	5	56
	12-18	7	63	25-35	1.15-1.30	0.20-2.00	0.18-0.20	3.0-5.9	0.5-1.0	.43	.43			
	18-21	11	69	15-25	1.20-1.40	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
	21-45	59	26	10-20	1.30-1.60	0.60-2.00	0.15-0.18	0.0-2.9	0.5-1.0	.24	.24			
	45-60			---	---	0.20-0.60	---	---	---	---	---			
Mm:														
Mccash-------	0-16	60	27	8-18	1.20-1.40	0.60-2.00	0.20-0.24	0.0-2.9	1.0-2.0	.32	.32	5	3	86
	16-46	60	27	8-18	1.20-1.40	0.60-2.00	0.13-0.22	0.0-2.9	0.5-2.0	.43	.43			
	46-60	63	29	5-12	1.20-1.50	0.60-2.00	0.12-0.19	0.0-2.9	0.0-0.5	.28	.28			
Mo:														
Mccook-------	0-10	12	70	10-27	1.10-1.40	0.60-2.00	0.20-0.23	0.0-2.9	2.0-4.0	.32	.32	5	4L	86
	10-60	14	72	10-18	1.20-1.50	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
Mp:														
Mccook-------	0-15	11	68	15-27	1.20-1.40	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.32	.32	5	4L	86
	15-60	14	72	10-18	1.30-1.45	0.60-2.00	0.17-0.20	0.0-2.9	0.0-1.0	.43	.43			
MtB:														
Mccook-------	0-15	11	68	15-27	1.20-1.40	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.32	.32	5	4L	86
	15-60	14	72	10-18	1.30-1.45	0.60-2.00	0.17-0.20	0.0-2.9	0.0-1.0	.43	.43			
OaF:														
Otero--------	0-7	45	43	5-18	1.40-1.60	2.00-6.00	0.18-0.22	0.0-2.9	0.5-1.0	.32	.32	5	4L	86
	7-60	66	26	5-10	1.45-1.75	2.00-6.00	0.12-0.19	0.0-2.9	0.0-1.0	.32	.32			
Canyon-------	0-10	44	41	10-20	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32	2	4L	86
	10-17	43	38	12-25	1.45-1.70	0.60-2.00	0.13-0.18	0.0-2.9	0.5-2.0	.20	.37			
	17-60			---	---	0.20-0.60	---	---	---	---	---			
OaG:														
Sulco--------	0-7	44	45	5-17	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	0.5-2.0	.37	.37	5	4L	86
	7-60	44	44	8-17	1.20-1.40	0.60-2.00	0.16-0.20	0.0-2.9	0.5-1.0	.43	.43			
Canyon-------	0-10	44	41	10-20	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32	2	4L	86
	10-17	43	38	12-25	1.45-1.70	0.60-2.00	0.13-0.18	0.0-2.9	0.5-2.0	.20	.37			
	17-60			---	---	0.20-0.60	---	---	---	---	---			
Rs:														
Rosebud------	0-5	45	41	8-20	1.20-1.45	0.60-2.00	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	3	5	56
	5-15	34	37	23-35	1.15-1.30	0.20-2.00	0.15-0.17	3.0-5.9	0.5-1.0	.37	.37			
	15-34	42	38	15-26	1.30-1.50	0.60-2.00	0.11-0.17	0.0-2.9	0.5-1.0	.28	.28			
	34-60			---	---	0.20-0.60	---	---	---	---	---			
RsB:														
Rosebud------	0-5	45	41	8-20	1.20-1.45	0.60-2.00	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	3	5	56
	5-15	34	37	23-35	1.15-1.30	0.20-2.00	0.15-0.17	3.0-5.9	0.5-1.0	.37	.37			
	15-34	65	15	15-26	1.30-1.50	0.60-2.00	0.11-0.17	0.0-2.9	0.5-1.0	.28	.28			
	34-60			---	---	0.20-0.60	---	---	---	---	---			
Rt:														
Rosebud------	0-6	45	41	8-20	1.20-1.45	0.60-2.00	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	3	5	56
	6-15	34	37	23-35	1.15-1.30	0.20-2.00	0.15-0.17	3.0-5.9	0.5-1.0	.37	.37			
	15-30	61	19	15-26	1.30-1.50	0.60-2.00	0.11-0.17	0.0-2.9	0.5-1.0	.28	.28			
	30-60			---	---	0.20-0.60	---	---	---	---	---			
Canyon-------	0-11	44	41	10-20	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32	2	4L	86
	11-14	43	38	12-25	1.45-1.70	0.60-2.00	0.13-0.18	0.0-2.9	0.5-2.0	.20	.37			
	14-60			---	---	0.20-0.60	---	---	---	---	---			
RtB:														
Rosebud------	0-6	45	41	8-20	1.20-1.45	0.60-2.00	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	3	5	56
	6-15	34	37	23-35	1.15-1.30	0.20-2.00	0.15-0.17	3.0-5.9	0.5-1.0	.37	.37			
	15-30	59	20	15-26	1.30-1.50	0.60-2.00	0.11-0.17	0.0-2.9	0.5-1.0	.28	.28			
	30-60			---	---	0.20-0.60	---	---	---	---	---			
Canyon-------	0-11	44	41	10-20	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32	2	4L	86
	11-14	43	38	12-25	1.45-1.70	0.60-2.00	0.13-0.18	0.0-2.9	0.5-2.0	.20	.37			
	14-60			---	---	0.20-0.60	---	---	---	---	---			

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Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										K	Kf	T		
	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					
RtC:														
Rosebud------	0-6	45	41	8-20	1.20-1.45	0.60-2.00	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	3	5	56
	6-15	34	37	23-35	1.15-1.30	0.20-2.00	0.15-0.17	3.0-5.9	0.5-1.0	.37	.37			
	15-30	65	15	15-26	1.30-1.50	0.60-2.00	0.11-0.17	0.0-2.9	0.5-1.0	.28	.28			
	30-60			---	---	0.20-0.60	---	---	---	---	---			
Canyon-------	0-11	44	41	10-20	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32	2	4L	86
	11-14	43	38	12-25	1.45-1.70	0.60-2.00	0.13-0.18	0.0-2.9	0.5-2.0	.20	.37			
	14-60			---	---	0.20-0.60	---	---	---	---	---			
RtD2:														
Rosebud------	0-6	45	41	8-20	1.20-1.45	0.60-2.00	0.22-0.24	0.0-2.9	2.0-4.0	.28	.28	3	5	56
	6-15	34	37	23-35	1.15-1.30	0.20-2.00	0.15-0.17	3.0-5.9	0.5-1.0	.37	.37			
	15-30	65	15	15-26	1.30-1.50	0.60-2.00	0.11-0.17	0.0-2.9	0.5-1.0	.28	.28			
	30-60			---	---	0.20-0.60	---	---	---	---	---			
Canyon-------	0-11	44	41	10-20	1.25-1.45	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.32	.32	2	4L	86
	11-14	43	38	12-25	1.45-1.70	0.60-2.00	0.13-0.18	0.0-2.9	0.5-2.0	.20	.37			
	14-60			---	---	0.20-0.60	---	---	---	---	---			
SaC:														
Sarben-------	0-6	80	12	8-15	1.35-1.55	2.00-6.00	0.11-0.13	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	6-17	79	12	8-18	1.45-1.75	2.00-6.00	0.10-0.19	0.0-2.9	0.5-1.0	.24	.24			
	17-27	79	12	8-18	1.45-1.75	2.00-6.00	0.10-0.18	0.0-2.9	0.0-0.5	.24	.24			
	27-60	79	12	8-18	1.45-1.75	2.00-6.00	0.09-0.18	0.0-2.9	0.0-0.5	.24	.24			
SaD:														
Sarben-------	0-6	80	12	8-15	1.35-1.55	2.00-6.00	0.11-0.13	0.0-2.9	0.5-2.0	.24	.24	5	2	134
	6-17	79	12	8-18	1.45-1.75	2.00-6.00	0.10-0.19	0.0-2.9	0.5-1.0	.24	.24			
	17-27	79	12	8-18	1.45-1.75	2.00-6.00	0.10-0.18	0.0-2.9	0.0-0.5	.24	.24			
	27-60	79	12	8-18	1.45-1.75	2.00-6.00	0.09-0.18	0.0-2.9	0.0-0.5	.24	.24			
SbB:														
Satanta------	0-9	64	26	5-15	1.30-1.40	0.60-2.00	0.17-0.19	0.0-2.9	1.0-2.0	.32	.32	5	3	86
	9-23	35	35	18-35	1.35-1.45	0.20-2.00	0.16-0.19	3.0-5.9	0.5-2.0	.28	.28			
	23-60	64	26	5-15	1.30-1.40	0.60-2.00	0.12-0.18	0.0-2.9	0.5-1.0	.32	.32			
SbC:														
Satanta------	0-9	64	26	5-15	1.30-1.40	0.60-2.00	0.17-0.19	0.0-2.9	1.0-2.0	.32	.32	5	3	86
	9-23	35	35	18-35	1.35-1.45	0.20-2.00	0.16-0.19	3.0-5.9	0.5-2.0	.28	.28			
	23-60	64	26	5-15	1.30-1.40	0.60-2.00	0.12-0.18	0.0-2.9	0.5-1.0	.32	.32			
Sc:														
Lodgepole----	0-4	26	53	16-25	1.20-1.40	0.60-2.00	0.22-0.24	0.0-2.9	2.0-4.0	.37	.37	5	6	48
	4-32	8	50	35-50	1.25-1.50	0.00-0.06	0.13-0.18	6.0-8.9	1.0-3.0	.28	.28			
	32-60	29	53	8-27	1.30-1.50	0.60-2.00	0.22-0.24	0.0-2.9	0.5-1.0	.43	.43			
TaB:														
Tassel-------	0-6	79	16	2-8	1.60-1.80	5.95-19.98	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	2	2	134
	6-16	65	27	5-12	1.40-1.70	2.00-6.00	0.12-0.18	0.0-2.9	0.5-2.0	.28	.28			
	16-60			---	---	0.20-0.60	---	---	---	---	---			
Duda---------	0-4	84	9	3-10	1.15-1.25	1.98-19.98	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	3	2	134
	4-30	92	2	3-10	1.45-1.60	1.98-19.98	0.08-0.10	0.0-2.9	0.0-1.0	.17	.17			
	30-60			---	---	0.20-2.00	---	---	---	---	---			
TaF:														
Tassel-------	0-6	79	16	2-8	1.60-1.80	5.95-19.98	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	2	2	134
	6-16	65	27	5-12	1.40-1.70	2.00-6.00	0.12-0.18	0.0-2.9	0.5-2.0	.28	.28			
	16-60			---	---	0.20-0.60	---	---	---	---	---			
Duda---------	0-4	84	9	3-10	1.15-1.25	1.98-19.98	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	3	2	134
	4-30	92	2	3-10	1.45-1.60	1.98-19.98	0.08-0.10	0.0-2.9	0.0-1.0	.17	.17			
	30-60			---	---	0.20-2.00	---	---	---	---	---			
UsC2:														
Ulysses------	0-5	14	69	15-20	1.20-1.40	0.60-2.00	0.20-0.23	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	5-36	10	68	18-27	1.20-1.40	0.60-2.00	0.10-0.19	0.0-2.9	1.0-2.0	.43	.43			
	36-60	10	68	18-27	1.20-1.40	0.60-2.00	0.10-0.19	0.0-2.9	0.5-1.0	.43	.43			
UsD2:														
Ulysses------	0-5	14	69	15-20	1.20-1.40	0.60-2.00	0.20-0.23	0.0-2.9	1.0-3.0	.32	.32	5	5	56
	5-36	10	68	18-27	1.20-1.40	0.60-2.00	0.10-0.19	0.0-2.9	1.0-2.0	.43	.43			
	36-60	10	68	18-27	1.20-1.40	0.60-2.00	0.10-0.19	0.0-2.9	0.5-1.0	.43	.43			
VaF:														
Valent-------	0-4	95	1	2-6	1.55-1.65	5.95-19.98	0.05-0.10	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	4-60	95	1	2-6	1.65-1.75	19.98-19.98	0.03-0.05	0.0-2.9	0.0-0.5	.10	.10			
VaG:														
Valent-------	0-4	95	1	2-6	1.55-1.65	5.95-19.98	0.05-0.10	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	4-60	95	1	2-6	1.65-1.75	19.98-19.98	0.03-0.05	0.0-2.9	0.0-0.5	.10	.10			
Valent-------	0-4	95	1	2-6	1.55-1.65	5.95-19.98	0.05-0.10	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	4-60	95	1	2-6	1.65-1.75	19.98-19.98	0.03-0.05	0.0-2.9	0.0-0.5	.10	.10			
VcB:														
Valent-------	0-8	84	9	3-10	1.55-1.65	5.95-19.98	0.07-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	8-60	95	1	2-6	1.65-1.75	19.98-19.98	0.03-0.05	0.0-2.9	0.0-0.5	.10	.10			
VcD:														
Valent-------	0-6	84	9	3-10	1.55-1.65	5.95-19.98	0.07-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	6-60	95	1	2-6	1.65-1.75	19.98-19.98	0.03-0.05	0.0-2.9	0.0-0.5	.10	.10			
VeB:														
Vetal--------	0-9	66	20	10-18	1.25-1.40	2.00-6.00	0.11-0.17	0.0-2.9	1.0-3.0	.20	.20	5	3	86
	9-48	65	20	12-18	1.25-1.40	2.00-6.00	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
	48-60	66	20	10-18	1.30-1.40	2.00-6.00	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
W:														
Water--------	---			---	---	---	---	---	---	---	---	-	---	0
Wa:														
Wann---------	0-12	64	26	5-15	1.30-1.50	2.00-6.00	0.13-0.18	0.0-2.9	1.0-3.0	.20	.20	5	3	86
	12-26	63	26	3-18	1.50-1.70	2.00-6.00	0.11-0.17	0.0-2.9	0.5-1.0	.28	.28			
	26-60	63	24	3-22	1.35-1.80	2.00-6.00	0.05-0.17	0.0-2.9	0.0-0.5	.15	.15			

PHYSICAL PROPERTIES OF THE SOILS
Chase County, Nebraska: Published

(Single entries under "Sand and Silt" are a representative percentage are calculated using an algorithm. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permeability (Ksat)	Available water capacity	Linear extensibility	Organic matter	Erosion factors			Wind erodibility group	Wind erodibility index
										K	Kf	T		
	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					
WoB:														
Woodly-------	0-9	87	7	2-10	1.30-1.45	2.00-6.00	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
	9-24	60	18	18-27	1.30-1.40	0.60-2.00	0.17-0.19	0.0-2.9	0.0-1.0	.20	.20			
	24-60	65	20	10-20	1.35-1.45	2.00-6.00	0.09-0.15	0.0-2.9	0.0-0.5	.20	.20			
WpB:														
Woodly-------	0-16	65	20	10-20	1.30-1.40	2.00-6.00	0.14-0.17	0.0-2.9	2.0-4.0	.20	.20	5	3	86
	16-38	60	18	18-27	1.30-1.40	0.60-2.00	0.17-0.19	0.0-2.9	0.0-1.0	.20	.20			
	38-60	66	19	10-20	1.35-1.45	2.00-6.00	0.09-0.15	0.0-2.9	0.0-0.5	.20	.20			

CHEMICAL PROPERTIES OF THE SOILS
Chase County, Nebraska

The Chemical Properties table shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils. Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. Soils having a high cation-exchange capacity can retain cations. The ability to retain cations helps to prevent the pollution of ground water.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water and can be dissolved and removed by water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

CHEMICAL PROPERTIES OF THE SOILS--Continued
Chase County, Nebraska

Map symbol and soil name	Depth	Cation-exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
Ac:							
Alliance--------	0-9	10-20	6.6-7.8	0	0	0	0
	9-17	20-35	6.6-7.8	0	0	0	0
	17-24	15-30	6.6-8.4	0-10	0	0	0
	24-50	10-25	7.4-8.4	1-10	0	0	0
	50-60	---	---	---	---	---	---
AED:							
Arents, Earthen Dam----------	---	---	---	---	---	---	---
Af:							
Altvan----------	0-7	10-20	6.1-7.8	0	0	0	0
	7-21	15-25	6.6-8.4	0-5	0	0	0
	21-26	10-20	7.4-9.0	5-15	0	0	0
	26-60	0.0-5.0	7.4-9.0	0-5	0	0	0
AfB:							
Altvan----------	0-7	10-20	6.1-7.8	0	0	0	0
	7-21	15-25	6.6-8.4	0-5	0	0	0
	21-26	10-20	7.4-9.0	5-15	0	0	0
	26-60	0.0-5.0	7.4-9.0	0-5	0	0	0
AfC:							
Altvan----------	0-7	10-20	6.1-7.8	0	0	0	0
	7-21	15-25	6.6-8.4	0-5	0	0	0
	21-26	10-20	7.4-9.0	5-15	0	0	0
	26-60	0.0-5.0	7.4-9.0	0-5	0	0	0
AsB:							
Ascalon---------	0-10	---	6.6-7.8	---	---	0	---
	10-22	---	6.6-7.8	---	---	0	---
	22-28	---	7.4-8.4	---	---	0	---
	28-60	---	7.4-8.4	---	---	0	---
AsC:							
Ascalon---------	0-10	---	6.6-7.8	---	---	0	---
	10-22	---	6.6-7.8	---	---	0	---
	22-28	---	7.4-8.4	---	---	0	---
	28-60	---	7.4-8.4	---	---	0	---
BeB:							
Blanche---------	0-11	5.0-15	6.6-7.8	0	0	0	0
	11-26	7.0-15	6.6-8.4	0-10	0	0	0
	26-34	7.0-15	7.4-8.4	1-10	0	0	0
	34-60	---	---	---	---	---	---
Bg:							
Bridget---------	0-12	8.0-20	6.6-7.8	0	0	0	0
	12-21	3.0-12	7.4-8.4	1-10	0	0	0
	21-60	3.0-12	7.4-8.4	1-10	0	0	0
BgB:							
Bridget---------	0-12	8.0-20	6.6-7.8	0	0	0	0
	12-21	3.0-12	7.4-8.4	1-10	0	0	0
	21-60	3.0-12	7.4-8.4	1-10	0	0	0
BuC:							
Bushman---------	0-7	5.0-15	7.4-8.4	5-10	0	0.0-2.0	0
	7-60	4.0-10	7.4-8.4	10-15	0	0.0-4.0	0
Cb:							
Caruso----------	0-12	12-21	7.4-9.0	1-10	0	4.0-16.0	0
	12-60	12-25	7.4-9.0	1-10	0	4.0-16.0	0
ChD:							
Sulco-----------	0-4	10-20	7.4-8.4	1-5	0	0	0
	4-60	10-15	7.4-9.0	5-15	0	0.0-4.0	0-9
ChF:							
Sulco-----------	0-4	10-20	7.4-8.4	1-5	0	0	0
	4-60	10-15	7.4-9.0	5-15	0	0.0-4.0	0-9
ChG:							
Sulco-----------	0-4	10-20	7.4-8.4	1-5	0	0	0
	4-60	10-15	7.4-9.0	5-15	0	0.0-4.0	0-9
CrB:							
Creighton-------	0-12	5.0-16	6.1-7.8	0-5	0	0	0
	12-20	4.0-11	6.6-7.8	0-5	0	0	0
	20-60	3.0-10	7.9-9.0	0-5	0	0.0-2.0	0-5
CrC:							
Creighton-------	0-12	5.0-16	6.1-7.8	0-5	0	0	0
	12-20	4.0-11	6.6-7.8	0-5	0	0	0
	20-60	3.0-10	7.9-9.0	0-5	0	0.0-2.0	0-5

CHEMICAL PROPERTIES OF THE SOILS--Continued
Chase County, Nebraska

Map symbol and soil name	Depth	Cation-exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
CrD:							
Creighton-------	0-12	5.0-16	6.1-7.8	0-5	0	0	0
	12-20	4.0-11	6.6-7.8	0-5	0	0	0
	20-60	3.0-10	7.9-9.0	0-5	0	0.0-2.0	0-5
DbB:							
Dailey----------	0-14	2.0-10	6.6-7.3	0	0	0	0
	14-60	0.0-5.0	6.6-8.4	0-2	0	0.0-2.0	0
DuC:							
Duda------------	0-7	3.0-9.0	6.1-7.3	0	0	0.0-2.0	0
	7-28	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	28-60	---	---	---	---	---	---
Tassel----------	0-5	1.0-10	7.4-8.4	1-15	0	0	0
	5-16	5.0-35	7.4-8.4	2-15	0	0	0
	16-60	---	---	---	---	---	---
Fu:							
Fluvaquents-----	0-6	10-35	6.6-8.4	0-5	0	0.0-2.0	0
	6-60	---	---	---	---	---	---
Gb:							
Gannett, OVERWASH-------	0-4	5.0-20	6.6-8.4	0-10	0	0	0
	4-60	2.0-15	6.6-8.4	0-10	0	0	0
Gf:							
Gibbon----------	0-9	16-22	7.4-8.4	0-5	0	0.0-2.0	0
	9-27	14-20	7.4-8.4	5-15	0	0.0-2.0	0-5
	27-60	10-18	7.9-9.0	5-15	0	0.0-2.0	0-5
Gh:							
Goshen----------	0-10	12-21	6.1-7.8	0	0	0	0
	10-32	17-25	6.6-8.4	0-5	0	0	0
	32-60	10-19	7.4-8.4	0-10	0	0	0
HaB:							
Haxtun----------	0-13	3.0-15	6.1-7.8	0	0	0	0
	13-19	5.0-25	6.1-7.8	0-5	0	0	0
	19-36	5.0-25	6.1-7.8	0-5	0	0	0
	36-60	5.0-25	7.4-8.4	0-10	0	0.0-2.0	0
HdB:							
Haxtun----------	0-11	5.0-20	6.1-7.8	0	0	0	0
	11-36	5.0-25	6.1-7.8	0-5	0	0	0
	36-50	5.0-25	7.4-8.4	0-10	0	0.0-2.0	0
	50-60	1.0-10	7.4-8.4	0-10	0	0.0-2.0	0
INT:							
Aquolls---------	0-72	---	---	---	---	---	---
JaB:							
Jayem-----------	0-12	4.0-10	6.6-7.8	0	0	0	0
	12-24	4.0-11	6.6-7.8	0	0	0	0
	24-60	3.0-10	6.6-7.8	0-2	0	0	0
JaC:							
Jayem-----------	0-12	4.0-10	6.6-7.8	0	0	0	0
	12-24	4.0-11	6.6-7.8	0	0	0	0
	24-60	3.0-10	6.6-7.8	0-2	0	0	0
JcB:							
Jayem-----------	0-11	5.0-14	6.6-7.8	0	0	0	0
	11-21	4.0-11	6.6-7.8	0	0	0	0
	21-42	3.0-10	6.6-7.8	0-2	0	0	0
	42-60	2.0-6.0	6.6-7.8	0-2	0	0	0
JcC:							
Jayem-----------	0-11	5.0-14	6.6-7.8	0	0	0	0
	11-21	4.0-11	6.6-7.8	0	0	0	0
	21-42	3.0-10	6.6-7.8	0-2	0	0	0
	42-60	2.0-6.0	6.6-7.8	0-2	0	0	0
KeB:							
Keith-----------	0-6	10-20	6.1-7.3	0	0	0	0
	6-23	15-30	6.6-7.3	0	0	0	0
	23-60	5.0-15	7.4-8.4	1-10	0	0	0
KeC2:							
Keith-----------	0-6	10-20	6.1-7.3	0	0	0	0
	6-23	15-30	6.6-7.3	0	0	0	0
	23-60	5.0-15	7.4-8.4	1-10	0	0	0
Ku:							
Kuma------------	0-10	10-25	6.1-8.4	0	0	0	0
	10-35	10-30	6.6-8.4	1-10	0	0	0
	35-60	5.0-20	7.9-9.0	1-10	0-2	0.0-2.0	0

CHEMICAL PROPERTIES OF THE SOILS--Continued
Chase County, Nebraska

Map symbol and soil name	Depth	Cation-exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
KuB:							
Kuma	0-10	10-25	6.1-8.4	0	0	0	0
	10-35	10-30	6.6-8.4	1-10	0	0	0
	35-60	5.0-20	7.9-9.0	1-10	0-2	0.0-2.0	0
KuC:							
Kuma	0-10	10-25	6.1-8.4	0	0	0	0
	10-35	10-30	6.6-8.4	1-10	0	0	0
	35-60	5.0-20	7.9-9.0	1-10	0-2	0.0-2.0	0
LaB:							
Laird	0-10	5.0-15	7.9-9.0	5-40	0	4.0-16.0	0-10
	10-26	10-20	7.9-9.0	15-40	0	4.0-16.0	5-15
	26-60	3.0-15	7.4-9.0	5-10	0	4.0-16.0	5-15
LD:							
	---	---	---	---	---	---	---
M-W:							
Miscellaneous Water	---	---	---	---	---	---	---
Ma:							
Mace	0-5	10-20	6.6-7.3	0	0	0	0
	5-18	15-30	6.6-7.8	0	0	0	0
	18-23	12-20	7.4-8.4	1-10	0	0	0
	23-30	5.0-20	7.4-8.4	1-15	0	0	0
	30-80	---	---	---	---	---	---
MaB:							
Mace	0-5	10-20	6.6-7.3	0	0	0	0
	5-18	15-30	6.6-7.8	0	0	0	0
	18-23	12-20	7.4-8.4	1-10	0	0	0
	23-28	5.0-20	7.4-8.4	1-15	0	0	0
	28-80	---	---	---	---	---	---
Mc:							
Mace	0-6	10-20	6.6-7.3	0	0	0	0
	6-18	15-30	6.6-7.8	0	0	0	0
	18-24	12-20	7.4-8.4	1-10	0	0	0
	24-34	5.0-20	7.4-8.4	1-15	0	0	0
	34-60	---	---	---	---	---	---
Alliance	0-12	10-20	6.6-7.8	0	0	0	0
	12-18	20-35	6.6-7.8	0	0	0	0
	18-21	15-30	6.6-8.4	0-10	0	0	0
	21-45	10-25	7.4-8.4	1-10	0	0	0
	45-60	---	---	---	---	---	---
McB:							
Mace	0-6	10-20	6.6-7.3	0	0	0	0
	6-18	15-30	6.6-7.8	0	0	0	0
	18-24	12-20	7.4-8.4	1-10	0	0	0
	24-34	5.0-20	7.4-8.4	1-15	0	0	0
	34-60	---	---	---	---	---	---
Alliance	0-12	10-20	6.6-7.8	0	0	0	0
	12-18	20-35	6.6-7.8	0	0	0	0
	18-21	15-30	6.6-8.4	0-10	0	0	0
	21-45	10-25	7.4-8.4	1-10	0	0	0
	45-60	---	---	---	---	---	---
Mm:							
Mccash	0-16	7.0-15	6.1-7.8	0	0	0	0
	16-46	6.0-15	6.1-7.8	0	0	0	0
	46-60	4.0-9.0	6.6-7.8	0	0	0	0
Mo:							
Mccook	0-10	5.0-20	7.4-8.4	1-10	0	0	0
	10-60	7.0-15	7.4-8.4	1-10	0	0	0
Mp:							
Mccook	0-15	12-22	7.4-8.4	1-10	0	0	0
	15-60	7.0-14	7.4-8.4	1-10	0	0	0
MtB:							
Mccook	0-15	12-22	7.4-8.4	1-10	0	0	0
	15-60	7.0-14	7.4-8.4	1-10	0	0	0
OaF:							
Otero	0-7	3.0-15	7.4-8.4	1-10	0	0	0
	7-60	3.0-10	7.4-8.4	1-10	0	0.0-2.0	0
Canyon	0-10	5.0-16	7.4-8.4	1-10	0	0.0-2.0	0
	10-17	10-20	7.4-8.4	1-10	0	0.0-2.0	0
	17-60	---	---	---	---	---	---

CHEMICAL PROPERTIES OF THE SOILS--Continued
Chase County, Nebraska

Map symbol and soil name	Depth	Cation-exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
OaG:							
Sulco----------	0-7	10-25	7.4-8.4	1-5	0	0	0
	7-60	10-15	7.4-9.0	5-15	0	0.0-4.0	0-9
Canyon----------	0-10	5.0-16	7.4-8.4	1-10	0	0.0-2.0	0
	10-17	10-20	7.4-8.4	1-10	0	0.0-2.0	0
	17-60	---	---	---	---	---	---
Rs:							
Rosebud---------	0-5	5.0-20	6.6-7.8	0	0	0.0-2.0	0
	5-15	15-30	6.6-8.4	0-5	0	0.0-2.0	0
	15-34	10-25	7.4-9.0	1-15	0	0.0-2.0	0-5
	34-60	---	---	---	---	---	---
RsB:							
Rosebud---------	0-5	5.0-20	6.6-7.8	0	0	0.0-2.0	0
	5-15	15-30	6.6-8.4	0-5	0	0.0-2.0	0
	15-34	10-25	7.4-9.0	1-15	0	0.0-2.0	0-5
	34-60	---	---	---	---	---	---
Rt:							
Rosebud---------	0-6	5.0-20	6.6-7.8	0	0	0.0-2.0	0
	6-15	15-30	6.6-8.4	0-5	0	0.0-2.0	0
	15-30	10-25	7.4-9.0	1-15	0	0.0-2.0	0-5
	30-60	---	---	---	---	---	---
Canyon----------	0-11	5.0-16	7.4-8.4	1-10	0	0.0-2.0	0
	11-14	10-20	7.4-8.4	1-10	0	0.0-2.0	0
	14-60	---	---	---	---	---	---
RtB:							
Rosebud---------	0-6	5.0-20	6.6-7.8	0	0	0.0-2.0	0
	6-15	15-30	6.6-8.4	0-5	0	0.0-2.0	0
	15-30	10-25	7.4-9.0	1-15	0	0.0-2.0	0-5
	30-60	---	---	---	---	---	---
Canyon----------	0-11	5.0-16	7.4-8.4	1-10	0	0.0-2.0	0
	11-14	10-20	7.4-8.4	1-10	0	0.0-2.0	0
	14-60	---	---	---	---	---	---
RtC:							
Rosebud---------	0-6	5.0-20	6.6-7.8	0	0	0.0-2.0	0
	6-15	15-30	6.6-8.4	0-5	0	0.0-2.0	0
	15-30	10-25	7.4-9.0	1-15	0	0.0-2.0	0-5
	30-60	---	---	---	---	---	---
Canyon----------	0-11	5.0-16	7.4-8.4	1-10	0	0.0-2.0	0
	11-14	10-20	7.4-8.4	1-10	0	0.0-2.0	0
	14-60	---	---	---	---	---	---
RtD2:							
Rosebud---------	0-6	5.0-20	6.6-7.8	0	0	0.0-2.0	0
	6-15	15-30	6.6-8.4	0-5	0	0.0-2.0	0
	15-30	10-25	7.4-9.0	1-15	0	0.0-2.0	0-5
	30-60	---	---	---	---	---	---
Canyon----------	0-11	5.0-16	7.4-8.4	1-10	0	0.0-2.0	0
	11-14	10-20	7.4-8.4	1-10	0	0.0-2.0	0
	14-60	---	---	---	---	---	---
SaC:							
Sarben----------	0-6	5.0-15	6.1-7.3	0	0	0	0
	6-17	5.0-15	6.6-7.8	0	0	0	0
	17-27	5.0-15	6.6-7.8	0-5	0	0	0
	27-60	5.0-15	7.4-8.4	2-10	0	0	0
SaD:							
Sarben----------	0-6	5.0-15	6.1-7.3	0	0	0	0
	6-17	5.0-15	6.6-7.8	0	0	0	0
	17-27	5.0-15	6.6-7.8	0-5	0	0	0
	27-60	5.0-15	7.4-8.4	2-10	0	0	0
SbB:							
Satanta---------	0-9	5.0-15	6.1-7.8	0	0	0	0
	9-23	15-30	6.6-8.4	0-10	0	0	0
	23-60	5.0-10	7.4-8.4	2-15	0	0	0
SbC:							
Satanta---------	0-9	5.0-15	6.1-7.8	0	0	0	0
	9-23	15-30	6.6-8.4	0-10	0	0	0
	23-60	5.0-10	7.4-8.4	2-15	0	0	0
Sc:							
Lodgepole-------	0-4	15-25	6.1-7.8	0	0	0	0
	4-32	25-40	6.1-7.8	0	0	0	0
	32-60	5.0-20	6.6-8.4	0-5	0	0	0

CHEMICAL PROPERTIES OF THE SOILS--Continued
Chase County, Nebraska

Map symbol and soil name	Depth	Cation-exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
TaB:							
Tassel----------	0-6	1.0-10	7.4-8.4	1-15	0	0	0
	6-16	5.0-35	7.4-8.4	2-15	0	0	0
	16-60	---	---	---	---	---	---
Duda----------	0-4	3.0-9.0	6.1-7.3	0	0	0.0-2.0	0
	4-30	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	30-60	---	---	---	---	---	---
TaF:							
Tassel----------	0-6	1.0-10	7.4-8.4	1-15	0	0	0
	6-16	5.0-35	7.4-8.4	2-15	0	0	0
	16-60	---	---	---	---	---	---
Duda----------	0-4	3.0-9.0	6.1-7.3	0	0	0.0-2.0	0
	4-30	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	30-60	---	---	---	---	---	---
UsC2:							
Ulysses---------	0-5	10-25	6.6-7.8	0	0	0	0
	5-36	15-30	7.4-8.4	0-5	0	0	0
	36-60	15-25	7.9-8.4	1-15	0	0	0
UsD2:							
Ulysses---------	0-5	10-25	6.6-7.8	0	0	0	0
	5-36	15-30	7.4-8.4	0-5	0	0	0
	36-60	15-25	7.9-8.4	1-15	0	0	0
VaF:							
Valent----------	0-4	0.0-5.0	6.6-7.8	0	0	0	0
	4-60	0.0-5.0	6.6-7.8	0-5	0	0	0
VaG:							
Valent----------	0-4	0.0-5.0	6.6-7.8	0	0	0	0
	4-60	0.0-5.0	6.6-7.8	0-5	0	0	0
Valent----------	0-4	0.0-5.0	6.6-7.8	0	0	0	0
	4-60	0.0-5.0	6.6-7.8	0-5	0	0	0
VcB:							
Valent----------	0-8	3.0-10	6.6-7.8	0	0	0	0
	8-60	0.0-5.0	6.6-7.8	0-5	0	0	0
VcD:							
Valent----------	0-6	3.0-10	6.6-7.8	0	0	0	0
	6-60	0.0-5.0	6.6-7.8	0-5	0	0	0
VeB:							
Vetal-----------	0-9	10-22	5.6-7.8	0	0	0	0
	9-48	10-22	6.1-7.8	0	0	0	0
	48-60	9.0-19	6.1-8.4	0-5	0	0	0
W:							
Water-----------	---	---	---	---	---	---	---
Wa:							
Wann----------	0-12	4.0-14	6.6-8.4	0-5	0	0.0-2.0	0-5
	12-26	2.0-14	7.4-9.0	0-5	0	0.0-2.0	0-10
	26-60	2.0-16	7.4-9.0	0-5	0	0.0-2.0	0-10
WoB:							
Woodly----------	0-9	2.0-10	6.1-7.3	0	0	0	0
	9-24	10-20	6.1-7.8	1-10	0	0	0
	24-60	5.0-15	6.6-8.4	1-10	0	0.0-2.0	0
WpB:							
Woodly----------	0-16	10-20	6.1-7.3	0	0	0	0
	16-38	10-20	6.1-7.8	1-10	0	0	0
	38-60	5.0-15	6.6-8.4	1-10	0	0.0-2.0	0

WATER FEATURES
Chase County, Nebraska

The Water Features table gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

The months in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The Water Features table indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table. Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The Water Features table indicates surface water depth and the duration and frequency of ponding. Duration is expressed as very brief if less than 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. None means that ponding is not probable; rare that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); occasional that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and frequent that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding, the temporary inundation of an area, is caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and frequency are estimated. Duration is expressed as extremely brief if 0.1 hour to 4 hours, very brief if 4 hours to 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. None means that flooding is not probable; very rare that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); rare that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); occasional that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); frequent that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and very frequent that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

WATER FEATURES--Continued
Chase County, Nebraska

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydrologic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
Ac:									
Alliance	B		---	---	---	---	---	---	---
Af:									
Altvan	B		---	---	---	---	---	---	---
AfB:									
Altvan	B		---	---	---	---	---	---	---
AfC:									
Altvan	B		---	---	---	---	---	---	---
AsB:									
Ascalon	B		---	---	---	---	---	---	---
AsC:									
Ascalon	B		---	---	---	---	---	---	---
BeB:									
Blanche	B		---	---	---	---	---	---	---
Bg:									
Bridget	B		---	---	---	---	---	---	---
BgB:									
Bridget	B		---	---	---	---	---	---	---
BuC:									
Bushman	B		---	---	---	---	---	---	---
Cb:									
Caruso	C								
		March	2.0-3.0	>6.0	---	---	---	---	None
		April	2.0-3.0	>6.0	---	---	---	Very brief	Occasional
		May	2.0-3.0	>6.0	---	---	---	Very brief	Occasional
		June	2.0-3.0	>6.0	---	---	---	Very brief	Occasional
		July	---	---	---	---	---	Very brief	Occasional
		August	---	---	---	---	---	Very brief	Occasional
		September	---	---	---	---	---	Very brief	Occasional
ChD:									
Sulco	B		---	---	---	---	---	---	---
ChF:									
Sulco	B		---	---	---	---	---	---	---
ChG:									
Sulco	B		---	---	---	---	---	---	---
CrB:									
Creighton	B		---	---	---	---	---	---	---
CrC:									
Creighton	B		---	---	---	---	---	---	---
CrD:									
Creighton	B		---	---	---	---	---	---	---
DbB:									
Dailey	A		---	---	---	---	---	---	---
DuC:									
Duda	A		---	---	---	---	---	---	---
Tassel	D		---	---	---	---	---	---	---
Fu:									
Fluvaquents	D								
		January	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
		February	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
		March	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
		April	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
		May	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
		June	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
		July	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Rare
		August	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Rare
		September	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Rare
		October	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Rare
		November	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
		December	0.0	>6.0	0.0-2.0	Very long	Frequent	Brief	Frequent
Gb:									

WATER FEATURES--Continued
Chase County, Nebraska

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydrologic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
Gannett, OVERWASH---------	D								
		January	0.0	>6.0	0.0-0.5	Long	---	---	None
		February	0.0	>6.0	0.0-0.5	Long	---	---	None
		March	0.0	>6.0	0.0-0.5	Long	---	---	None
		April	0.0	>6.0	0.0-0.5	Long	---	---	None
		May	0.0	>6.0	0.0-0.5	Long	---	---	None
		June	0.0	>6.0	0.0-0.5	Long	---	---	None
		November	0.0	>6.0	0.0-0.5	Long	---	---	None
		December	0.0	>6.0	0.0-0.5	Long	---	---	None
Gf:									
Gibbon---------------------	B								
		January	1.5-3.0	>6.0	---	---	---	---	None
		February	1.5-3.0	>6.0	---	---	---	---	None
		March	1.5-3.0	>6.0	---	---	---	Very brief	Occasional
		April	1.5-3.0	>6.0	---	---	---	Very brief	Occasional
		May	1.5-3.0	>6.0	---	---	---	Very brief	Occasional
		June	1.5-3.0	>6.0	---	---	---	Very brief	Occasional
		July	---	---	---	---	---	Very brief	Occasional
		November	1.5-3.0	>6.0	---	---	---	---	None
		December	1.5-3.0	>6.0	---	---	---	---	None
Gh:									
Goshen---------------------	B								
		March	---	---	---	---	---	Very brief	Rare
		April	---	---	---	---	---	Very brief	Rare
		May	---	---	---	---	---	Very brief	Rare
		June	---	---	---	---	---	Very brief	Rare
		July	---	---	---	---	---	Very brief	Rare
		August	---	---	---	---	---	Very brief	Rare
		September	---	---	---	---	---	Very brief	Rare
HaB:									
Haxtun---------------------	B								
			---	---	---	---	---	---	---
HdB:									
Haxtun---------------------	B								
			---	---	---	---	---	---	---
INT:									
Aquolls--------------------	C								
		March	0.0	>6.0	0.0-0.8	Brief	Occasional	---	None
		April	0.0	>6.0	0.0-0.8	Brief	Occasional	---	None
		May	0.0	>6.0	0.0-0.8	Brief	Occasional	---	None
		June	0.0	>6.0	0.0-0.8	Brief	Occasional	---	None
JaB:									
Jayem----------------------	B								
			---	---	---	---	---	---	---
JaC:									
Jayem----------------------	B								
			---	---	---	---	---	---	---
JcB:									
Jayem----------------------	B								
			---	---	---	---	---	---	---
JcC:									
Jayem----------------------	B								
			---	---	---	---	---	---	---
KeB:									
Keith----------------------	B								
			---	---	---	---	---	---	---
KeC2:									
Keith----------------------	B								
			---	---	---	---	---	---	---
Ku:									
Kuma-----------------------	B								
			---	---	---	---	---	---	---
KuB:									
Kuma-----------------------	B								
			---	---	---	---	---	---	---
KuC:									
Kuma-----------------------	B								
			---	---	---	---	---	---	---
LaB:									
Laird----------------------	B								
			---	---	---	---	---	---	---
Ma:									
Mace-----------------------	B								
			---	---	---	---	---	---	---
MaB:									
Mace-----------------------	B								
			---	---	---	---	---	---	---
Mc:									
Mace-----------------------	B								
			---	---	---	---	---	---	---
Alliance-------------------	B								
			---	---	---	---	---	---	---
McB:									
Mace-----------------------	B								

WATER FEATURES--Continued
Chase County, Nebraska

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydrologic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
Alliance	B		---	---	---	---	---	---	---
			---	---	---	---	---	---	---
Mm:									
Mccash	B		---	---	---	---	---	---	---
Mo:									
Mccook	B								
		April	---	---	---	---	---	Very brief	Rare
		May	---	---	---	---	---	Very brief	Rare
		June	---	---	---	---	---	Very brief	Rare
		July	---	---	---	---	---	Very brief	Rare
Mp:									
Mccook	B								
		April	---	---	---	---	---	Very brief	Occasional
		May	---	---	---	---	---	Very brief	Occasional
		June	---	---	---	---	---	Very brief	Occasional
		July	---	---	---	---	---	Very brief	Occasional
MtB:									
Mccook	B								
		April	---	---	---	---	---	Very brief	Frequent
		May	---	---	---	---	---	Very brief	Frequent
		June	---	---	---	---	---	Very brief	Frequent
		July	---	---	---	---	---	Very brief	Frequent
OaF:									
Otero	B		---	---	---	---	---	---	---
Canyon	D		---	---	---	---	---	---	---
OaG:									
Sulco	B		---	---	---	---	---	---	---
Canyon	D		---	---	---	---	---	---	---
Rs:									
Rosebud	B		---	---	---	---	---	---	---
RsB:									
Rosebud	B		---	---	---	---	---	---	---
Rt:									
Rosebud	B		---	---	---	---	---	---	---
Canyon	D		---	---	---	---	---	---	---
RtB:									
Rosebud	B		---	---	---	---	---	---	---
Canyon	D		---	---	---	---	---	---	---
RtC:									
Rosebud	B		---	---	---	---	---	---	---
Canyon	D		---	---	---	---	---	---	---
RtD2:									
Rosebud	B		---	---	---	---	---	---	---
Canyon	D		---	---	---	---	---	---	---
SaC:									
Sarben	B		---	---	---	---	---	---	---
SaD:									
Sarben	B		---	---	---	---	---	---	---
SbB:									
Satanta	B		---	---	---	---	---	---	---
SbC:									
Satanta	B		---	---	---	---	---	---	---
Sc:									
Lodgepole	D								
		March	0.0	0.2-2.0	0.0-0.5	Brief	Frequent	---	None
		April	0.0	0.2-2.0	0.0-0.5	Brief	Frequent	---	None
		May	0.0	0.2-2.0	0.0-0.5	Brief	Frequent	---	None
		June	0.0	0.2-2.0	0.0-0.5	Brief	Frequent	---	None
		July	0.0	0.2-2.0	0.0-0.5	Brief	Frequent	---	None
TaB:									
Tassel	D		---	---	---	---	---	---	---
Duda	A		---	---	---	---	---	---	---

WATER FEATURES--Continued
Chase County, Nebraska

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydrologic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
TaF:									
Tassel	D		---	---	---	---	---	---	---
Duda	A		---	---	---	---	---	---	---
UsC2:									
Ulysses	B		---	---	---	---	---	---	---
UsD2:									
Ulysses	B		---	---	---	---	---	---	---
VaF:									
Valent	A		---	---	---	---	---	---	---
VaG:									
Valent	A		---	---	---	---	---	---	---
Valent	A		---	---	---	---	---	---	---
VcB:									
Valent	A		---	---	---	---	---	---	---
VcD:									
Valent	A		---	---	---	---	---	---	---
VeB:									
Vetal	B		---	---	---	---	---	---	---
W:									
Water	---		---	---	---	---	---	---	---
Wa:									
Wann	B								
		March	1.5-3.5	>6.0	---	---	---	Brief	Occasional
		April	1.5-3.5	>6.0	---	---	---	Brief	Occasional
		May	1.5-3.5	>6.0	---	---	---	Brief	Occasional
		June	1.5-3.5	>6.0	---	---	---	Brief	Occasional
		July	1.5-3.5	>6.0	---	---	---	Brief	Occasional
		August	---	---	---	---	---	Brief	Occasional
		September	---	---	---	---	---	Brief	Occasional
		October	---	---	---	---	---	Brief	Occasional
		November	---	---	---	---	---	Brief	Occasional
WoB:									
Woodly	B		---	---	---	---	---	---	---
WpB:									
Woodly	B		---	---	---	---	---	---	---

SOIL FEATURES
Chase County, Nebraska

The following table gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A restrictive layer is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. Depth to top is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as low, moderate, or high, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as low, moderate, or high. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

SOIL FEATURES--Continued
Chase County, Nebraska

Map symbol and soil name	Restrictive layer				Potential for Frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated Steel	Concrete
		In	In				
Ac:							
Alliance--------	40-60	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
AED:							
Arents, Earthen Dam----------	---	---	---	---	---	---	---
Af:							
Altvan----------	---	---	---	---	Moderate	Low	Low
AfB:							
Altvan----------	---	---	---	---	Moderate	Low	Low
AfC:							
Altvan----------	---	---	---	---	Moderate	Low	Low
AsB:							
Ascalon---------	---	---	---	---	Moderate	Moderate	Low
AsC:							
Ascalon---------	---	---	---	---	Moderate	Moderate	Low
BeB:							
Blanche---------	20-40	Bedrock (paralithic)	---	---	Low	Low	Low
Bg:							
Bridget---------	---	---	---	---	Moderate	Low	Low
BgB:							
Bridget---------	---	---	---	---	Moderate	Low	Low
BuC:							
Bushman---------	---	---	---	---	Low	High	Low
Cb:							
Caruso----------	---	---	---	---	Moderate	High	Moderate
ChD:							
Sulco-----------	---	---	---	---	Low	High	Low
ChF:							
Sulco-----------	---	---	---	---	Low	High	Low
ChG:							
Sulco-----------	---	---	---	---	Low	High	Low
CrB:							
Creighton-------	---	---	---	---	Low	High	Low
CrC:							
Creighton-------	---	---	---	---	Low	High	Low
CrD:							
Creighton-------	---	---	---	---	Low	High	Low
DbB:							
Dailey----------	---	---	---	---	Low	High	Low
DuC:							
Duda------------	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
Tassel----------	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
Fu:							
Fluvaquents-----	---	---	---	---	Moderate	High	Low
Gb:							
Gannett, OVERWASH-------	---	---	---	---	High	High	Low
Gf:							
Gibbon----------	---	---	---	---	High	High	Low
Gh:							
Goshen----------	---	---	---	---	Moderate	High	Low
HaB:							
Haxtun----------	---	---	---	---	Moderate	High	Low
HdB:							
Haxtun----------	---	---	---	---	Moderate	High	Low
INT:							
Aquolls---------	---	---	---	---	Low	---	---
JaB:							
Jayem-----------	---	---	---	---	Low	Moderate	Low
JaC:							
Jayem-----------	---	---	---	---	Low	Moderate	Low
JcB:							
Jayem-----------	---	---	---	---	Low	Moderate	Low
JcC:							
Jayem-----------	---	---	---	---	Low	Moderate	Low
KeB:							
Keith-----------	---	---	---	---	Moderate	Moderate	Low
KeC2:							
Keith-----------	---	---	---	---	Moderate	Moderate	Low
Ku:							
Kuma------------	---	---	---	---	Moderate	High	Moderate
KuB:							
Kuma------------	---	---	---	---	Moderate	High	Moderate
KuC:							
Kuma------------	---	---	---	---	Moderate	High	Moderate
LaB:							
Laird-----------	---	---	---	---	Moderate	High	Moderate
LD:							
	---	---	---	---	---	---	---
M-W:							
Miscellaneous Water----------	---	---	---	---	---	---	---

SOIL FEATURES--Continued
Chase County, Nebraska

Map symbol and soil name	Restrictive layer				Potential for Frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated Steel	Concrete
		In	In				
Ma:							
Mace	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
MaB:							
Mace	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Mc:							
Mace	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Alliance	40-60	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
McB:							
Mace	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Alliance	40-60	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Mm:							
Mccash	---	---	---	---	Moderate	Low	Low
Mo:							
Mccook	---	---	---	---	Moderate	High	Low
Mp:							
Mccook	---	---	---	---	Moderate	Low	Low
MtB:							
Mccook	---	---	---	---	Moderate	Low	Low
OaF:							
Otero	---	---	---	---	Low	High	Low
Canyon	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
OaG:							
Sulco	---	---	---	---	Low	High	Low
Canyon	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
Rs:							
Rosebud	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
RsB:							
Rosebud	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Rt:							
Rosebud	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Canyon	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
RtB:							
Rosebud	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Canyon	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
RtC:							
Rosebud	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Canyon	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
RtD2:							
Rosebud	20-40	Bedrock (paralithic)	---	---	Moderate	High	Low
Canyon	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
SaC:							
Sarben	---	---	---	---	Low	High	Low
SaD:							
Sarben	---	---	---	---	Low	High	Low
SbB:							
Satanta	---	---	---	---	Moderate	Low	Low
SbC:							
Satanta	---	---	---	---	Moderate	Low	Low
Sc:							
Lodgepole	---	---	---	---	High	High	Low
TaB:							
Tassel	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
Duda	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
TaF:							
Tassel	6-20	Bedrock (paralithic)	---	---	Low	Low	Low
Duda	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
UsC2:							
Ulysses	---	---	---	---	Low	Moderate	Low
UsD2:							
Ulysses	---	---	---	---	Low	Moderate	Low
VaF:							
Valent	---	---	---	---	Low	Moderate	Low
VaG:							
Valent	---	---	---	---	Low	Moderate	Low
Valent	---	---	---	---	Low	Moderate	Low

SOIL FEATURES--Continued
Chase County, Nebraska

Map symbol and soil name	Restrictive layer				Potential for Frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated Steel	Concrete
		In	In				
VcB:							
Valent----------	---	---	---	---	Low	Moderate	Low
VcD:							
Valent----------	---	---	---	---	Low	Moderate	Low
VeB:							
Vetal-----------	---	---	---	---	Moderate	Moderate	Low
W:							
Water-----------	---	---	---	---	---	---	---
Wa:							
Wann------------	---	---	---	---	High	Moderate	Low
WoB:							
Woodly----------	---	---	---	---	Moderate	Moderate	Low
WpB:							
Woodly----------	---	---	---	---	Moderate	Moderate	Low

WATER MANAGEMENT
Chase County, Nebraska

The soils of the survey area are rated in the Water Management table according to limitations that affect their suitability for water management. Soils are rated for pond reservoir areas, drainage, irrigation, terraces and diversions, and grassed waterways. Restrictive features that affect each soil for the specified use is also provided in the table.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Moderately limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Limited indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but generally require special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate to high maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Limitation class terms, such as very limited or limited, etc., limitation ratings, and numerical ratings are shown for each soil feature listed. As many as three soil features may be listed for each soil component if applicable. The overall limitation rating for the soil component is based on the most severe limitation.

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorablecompaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects theamount of usable material. It also affects traffic ability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Drainage is the removal of excess surface and subsurface water from the soil. How easily and effectively the soil is drained depends on the depth to bedrock, to a cemented pan, or to other layers that affect the rate of water movement; permeability; depth to a high water table or depth of standing water if the soil is subject to ponding; slope; susceptibility to flooding; subsidence of organic layers; and the potential for frost action. Excavating and grading and the stability of ditch banks are affected by depth to bedrock or to a cemented pan, large stones, slope, and the hazard of cutbanks caving. The productivity of the soil after drainage is adversely affected by extreme acidity or by toxic substances in the root zone, such as salts, sodium, and sulfur. Availability of drainage outlets is not considered in the ratings.

Irrigation is the controlled application of water to supplement rainfall and support plant growth. The design and management of an irrigation system are affected by depth to the water table, the need for drainage, flooding, available water capacity, intake rate, permeability, erosion hazard, and slope. The construction of a system is affected by large stones and depth to bedrock or to a cemented pan. The performance of a system is affected by the depth of the root zone, the amount of salts or sodium, and soil reaction.

Terraces and diversions are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff. Slope, wetness, large stones, and depth to bedrock or to a cemented pan affect the construction of terraces and diversions. A restricted rooting depth, a very limited hazard of wind erosion or water erosion, an excessively coarse texture, and restricted permeability adversely affect maintenance.

Grassed waterways are natural or constructed channels, generally broad and shallow, which conduct surface water to outlets at a non-erosive velocity. Large stones, wetness, slope, and depth to bedrock or to a cemented pan affect the construction of grassed waterways. A hazard of wind erosion, low available water capacity, restricted rooting depth, toxic substances such as salts and sodium, and restricted permeability adversely affect the growth and maintenance of the grass after construction.

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Ac: Alliance	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily too arid
AED: Arents, Earthen Dam	---	---	---	---
Af: Altvan	Limitation: deep to water	Favorable	Limitation: erodes easily too sandy	Limitation: erodes easily too arid
AfB: Altvan	Limitation: deep to water	Favorable	Limitation: erodes easily too sandy	Limitation: erodes easily too arid
AfC: Altvan	Limitation: deep to water	Limitation: slope	Limitation: erodes easily too sandy	Limitation: erodes easily too arid
AsB: Ascalon	Limitation: deep to water	Limitation: droughty	Limitation: soil blowing	Limitation: too arid droughty
AsC: Ascalon	Limitation: deep to water	Limitation: slope droughty	Limitation: soil blowing	Limitation: too arid droughty
BeB: Blanche	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing depth to rock	Limitation: too arid depth to rock
Bg: Bridget	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily too arid
BgB: Bridget	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily too arid
BuC: Bushman	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing	Limitation: too arid
Cb: Caruso	Limitation: excess sodium excess salt flooding	Limitation: flooding wetness	Limitation: wetness	Limitation: excess sodium excess salt
ChD: Sulco	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily	Limitation: erodes easily too arid
ChF: Sulco	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope	Limitation: erodes easily slope too arid
ChG: Sulco	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope	Limitation: erodes easily slope too arid
CrB: Creighton	Limitation: deep to water	Limitation: soil blowing	Limitation: erodes easily soil blowing	Limitation: erodes easily too arid
CrC: Creighton	Limitation: deep to water	Limitation: slope soil blowing	Limitation: erodes easily soil blowing	Limitation: erodes easily too arid
CrD: Creighton	Limitation: deep to water	Limitation: slope soil blowing	Limitation: erodes easily slope soil blowing	Limitation: erodes easily slope too arid
DbB: Dailey	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: too arid droughty
DuC: Duda	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy depth to rock	Limitation: depth to rock droughty

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
Tassel----------	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: soil blowing depth to rock	Limitation: too arid depth to rock
Fu: Fluvaquents-----	Limitation: flooding ponding	Limitation: rooting depth ponding	Limitation: ponding	Limitation: rooting depth wetness
Gb: Gannett, OVERWASH-------	Limitation: frost action ponding cutbanks cave	Limitation: ponding	Limitation: too sandy ponding	Limitation: wetness
Gf: Gibbon----------	Limitation: flooding frost action	Limitation: flooding wetness	Limitation: wetness	Favorable
Gh: Goshen----------	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
HaB: Haxtun----------	Limitation: deep to water	Limitation: fast intake soil blowing	Limitation: soil blowing	Favorable
HdB: Haxtun----------	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing	Favorable
INT: Aquolls---------	---	---	---	---
JaB: Jayem----------	Limitation: deep to water	Limitation: fast intake soil blowing	Limitation: soil blowing	Limitation: too arid
JaC: Jayem----------	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: soil blowing	Limitation: too arid
JcB: Jayem----------	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing	Limitation: too arid
JcC: Jayem----------	Limitation: deep to water	Limitation: slope soil blowing	Limitation: soil blowing	Limitation: too arid
KeB: Keith----------	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily too arid
KeC2: Keith----------	Limitation: deep to water	Limitation: slope	Limitation: erodes easily	Limitation: erodes easily too arid
Ku: Kuma----------	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
KuB: Kuma----------	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
KuC: Kuma----------	Limitation: deep to water	Limitation: slope	Limitation: erodes easily	Limitation: erodes easily
LaB: Laird----------	Limitation: deep to water	Limitation: excess sodium soil blowing	Limitation: soil blowing	Limitation: excess sodium too arid
LD:	---	---	---	---
M-W: Miscellaneous Water----------	---	---	---	---
Ma: Mace----------	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid depth to rock
MaB: Mace----------	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid depth to rock

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting-- Drainage	Irrigation	Terraces and diversions	Grassed waterways
Mc:				
Mace	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid depth to rock
Alliance	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily too arid
McB:				
Mace	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid depth to rock
Alliance	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily too arid
Mm:				
Mccash	Limitation: deep to water	Favorable	Limitation: erodes easily soil blowing	Limitation: erodes easily
Mo:				
Mccook	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
Mp:				
Mccook	Limitation: deep to water	Limitation: flooding	Limitation: erodes easily	Limitation: erodes easily
MtB:				
Mccook	Limitation: deep to water	Limitation: flooding	Limitation: erodes easily	Limitation: erodes easily
OaF:				
Otero	Limitation: deep to water	Limitation: rooting depth slope	Limitation: slope	Limitation: slope too arid
Canyon	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope too arid
OaG:				
Sulco	Limitation: deep to water	Limitation: erodes easily slope	Limitation: erodes easily slope	Limitation: erodes easily slope too arid
Canyon	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope too arid
Rs:				
Rosebud	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid
RsB:				
Rosebud	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid
Rt:				
Rosebud	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid
Canyon	Limitation: deep to water	Limitation: depth to rock	Limitation: depth to rock	Limitation: too arid
RtB:				
Rosebud	Limitation: deep to water	Limitation: depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid
Canyon	Limitation: deep to water	Limitation: depth to rock	Limitation: depth to rock	Limitation: too arid
RtC:				
Rosebud	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily too arid
Canyon	Limitation: deep to water	Limitation: slope depth to rock	Limitation: depth to rock	Limitation: too arid
RtD2:				
Rosebud	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope too arid
Canyon	Limitation: deep to water	Limitation: slope depth to rock	Limitation: slope depth to rock	Limitation: slope too arid
SaC:				
Sarben	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: soil blowing	Limitation: rooting depth

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
SaD:				
Sarben----------	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: soil blowing	Limitation: rooting depth
SbB:				
Satanta---------	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing	Limitation: too arid
SbC:				
Satanta---------	Limitation: deep to water	Limitation: slope soil blowing	Limitation: soil blowing	Limitation: too arid
Sc:				
Lodgepole-------	Limitation: frost action percs slowly ponding	Limitation: erodes easily percs slowly ponding	Limitation: erodes easily percs slowly ponding	Limitation: erodes easily percs slowly wetness
TaB:				
Tassel----------	Limitation: deep to water	Limitation: fast intake soil blowing	Limitation: soil blowing depth to rock	Limitation: too arid depth to rock
Duda------------	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy depth to rock	Limitation: depth to rock droughty
TaF:				
Tassel----------	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: slope soil blowing depth to rock	Limitation: slope too arid depth to rock
Duda------------	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy depth to rock	Limitation: slope depth to rock droughty
UsC2:				
Ulysses---------	Limitation: deep to water	Limitation: slope	Limitation: erodes easily	Limitation: erodes easily too arid
UsD2:				
Ulysses---------	Limitation: deep to water	Limitation: slope	Limitation: erodes easily	Limitation: erodes easily too arid
VaF:				
Valent----------	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: slope too arid droughty
VaG:				
Valent----------	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: slope too arid droughty
Valent----------	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: slope too arid droughty
VcB:				
Valent----------	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: too arid droughty
VcD:				
Valent----------	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing	Limitation: too arid droughty
VeB:				
Vetal-----------	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing	Favorable
W:				
Water-----------	---	---	---	---
Wa:				
Wann------------	Limitation: flooding frost action	Limitation: flooding wetness soil blowing	Limitation: wetness soil blowing	Favorable
WoB:				
Woodly----------	Limitation: deep to water	Limitation: fast intake	Limitation: soil blowing	Favorable
WpB:				
Woodly----------	Limitation: deep to water	Favorable	Limitation: soil blowing	Favorable

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer-fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:							
Alliance	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
		Depth to bedrock	0.00	Thin layer	0.11		
				Seepage	0.05		
AED:							
Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Af:							
Altvan	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.95	Deep to water	1.00
AfB:							
Altvan	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.95	Deep to water	1.00
AfC:							
Altvan	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.95	Deep to water	1.00
AsB:							
Ascalon	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.06	Deep to water	1.00
AsC:							
Ascalon	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.70	Deep to water	1.00
BeB:							
Blanche	97	Very limited		Very limited		Very limited	
		Seepage	1.00	Piping	1.00	Deep to water	1.00
		Depth to bedrock	0.05	Thin layer	0.74		
				Seepage	0.09		
Bg:							
Bridget	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
				Seepage	0.06		
BgB:							
Bridget	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
				Seepage	0.06		
BuC:							
Bushman	100	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.07	Deep to water	1.00
Cb:							
Caruso	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Seepage	0.57	Piping	0.88	Salty water	0.50
				Depth to saturated zone	0.86	Slow refill	0.43
				Salinity	0.12	Cutbanks cave	0.10
						Deep to water	0.06
ChD:							
Sulco	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
ChF:							
Sulco	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
		Slope	0.12				
ChG:							
Sulco	100	Somewhat limited		Very limited		Very limited	
		Slope	0.97	Piping	1.00	Deep to water	1.00
		Seepage	0.70				
CrB:							
Creighton	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
				Seepage	0.08		
CrC:							
Creighton	97	Somewhat limited		Very limited		Very limited	

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer-fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Seepage	0.70	Piping Seepage	1.00 0.08	Deep to water	1.00
CrD: Creighton----------	100	Somewhat limited Seepage	 0.70	Very limited Piping Seepage	 1.00 0.08	Very limited Deep to water	 1.00
DbB: Dailey----------	97	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.24	Very limited Deep to water	 1.00
DuC: Duda----------	62	Very limited Seepage Depth to bedrock	 1.00 0.17	Somewhat limited Seepage Thin layer	 0.98 0.91	Very limited Deep to water	 1.00
Tassel----------	35	Somewhat limited Depth to bedrock Seepage	 0.61 0.05	Very limited Thin layer Seepage	 1.00 0.08	Very limited Deep to water	 1.00
Fu: Fluvaquents----------	100	Very limited Seepage	 1.00	Very limited Ponding Depth to saturated zone	 1.00 1.00	Somewhat limited Cutbanks cave	 0.10
Gb: Gannett, OVERWASH---	100	Very limited Seepage	 1.00	Very limited Depth to saturated zone Seepage	 1.00 0.07	Somewhat limited Cutbanks cave	 0.10
Gf: Gibbon----------	95	Very limited Seepage	 1.00	Very limited Piping Depth to saturated zone Seepage	 1.00 0.95 0.04	Somewhat limited Cutbanks cave Deep to water	 0.10 0.02
Gh: Goshen----------	97	Somewhat limited Seepage	 0.70	Somewhat limited Piping	 0.93	Very limited Deep to water	 1.00
HaB: Haxtun----------	97	Very limited Seepage	 1.00	Very limited Piping Seepage	 1.00 0.05	Very limited Deep to water	 1.00
HdB: Haxtun----------	97	Very limited Seepage	 1.00	Very limited Piping Seepage	 1.00 0.19	Very limited Deep to water	 1.00
INT: Aquolls----------	100	Very limited Seepage	 1.00	Very limited Depth to saturated zone Ponding	 1.00 1.00	Somewhat limited Cutbanks cave	 0.10
JaB: Jayem----------	97	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.07	Very limited Deep to water	 1.00
JaC: Jayem----------	97	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.07	Very limited Deep to water	 1.00
JcB: Jayem----------	97	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.65	Very limited Deep to water	 1.00
JcC: Jayem----------	100	Very limited Seepage	 1.00	Somewhat limited Seepage	 0.65	Very limited Deep to water	 1.00
KeB: Keith----------	97	Somewhat limited Seepage	 0.70	Very limited Piping	 1.00	Very limited Deep to water	 1.00

WATER MANAGEMENT--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer-fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
KeC2:							
Keith	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
Ku:							
Kuma	97	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.71	Deep to water	1.00
KuB:							
Kuma	97	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.71	Deep to water	1.00
KuC:							
Kuma	100	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Piping	0.71	Deep to water	1.00
LaB:							
Laird	97	Very limited		Very limited		Very limited	
		Seepage	1.00	Salinity	1.00	Deep to water	1.00
				Piping	0.78		
				Seepage	0.08		
M-W:							
Miscellaneous Water-	100	Not rated		Not rated		Not rated	
Ma:							
Mace	97	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.85	Deep to water	1.00
		Depth to bedrock	0.11	Piping	0.82		
MaB:							
Mace	100	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.91	Deep to water	1.00
		Depth to bedrock	0.17	Piping	0.72		
Mc:							
Mace	62	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.85	Deep to water	1.00
		Depth to bedrock	0.11	Piping	0.80		
Alliance	35	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
		Depth to bedrock	0.00	Thin layer	0.11		
				Seepage	0.05		
McB:							
Mace	62	Somewhat limited		Somewhat limited		Very limited	
		Seepage	0.70	Thin layer	0.85	Deep to water	1.00
		Depth to bedrock	0.11	Piping	0.80		
Alliance	35	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
		Depth to bedrock	0.00	Thin layer	0.11		
				Seepage	0.05		
Mm:							
Mccash	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
				Seepage	0.07		
Mo:							
Mccook	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
Mp:							
Mccook	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
MtB:							
Mccook	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
OaF:							
Otero	70	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.09	Deep to water	1.00
		Slope	0.01				
Canyon	30	Somewhat limited		Very limited		Very limited	

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer-fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Depth to bedrock Seepage Slope	0.74 0.05 0.01	Thin layer Piping	1.00 1.00	Deep to water	1.00
OaG:							
Sulco	60	Somewhat limited Slope Seepage	0.82 0.70	Very limited Piping	1.00	Very limited Deep to water	1.00
Canyon	40	Somewhat limited Depth to bedrock Slope Seepage	0.74 0.64 0.05	Very limited Thin layer Piping	1.00 1.00	Very limited Deep to water	1.00
Rs:							
Rosebud	97	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Very limited Piping Thin layer	1.00 0.85	Very limited Deep to water	1.00
RsB:							
Rosebud	97	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Very limited Piping Thin layer Seepage	1.00 0.85 0.08	Very limited Deep to water	1.00
Rt:							
Rosebud	62	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Very limited Piping Thin layer Seepage	1.00 0.85 0.06	Very limited Deep to water	1.00
Canyon	35	Somewhat limited Depth to bedrock Seepage	0.74 0.05	Very limited Thin layer Piping	1.00 1.00	Very limited Deep to water	1.00
RtB:							
Rosebud	62	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Very limited Piping Thin layer Seepage	1.00 0.85 0.05	Very limited Deep to water	1.00
Canyon	35	Somewhat limited Depth to bedrock Seepage	0.74 0.05	Very limited Thin layer Piping	1.00 1.00	Very limited Deep to water	1.00
RtC:							
Rosebud	62	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Very limited Piping Thin layer Seepage	1.00 0.85 0.08	Very limited Deep to water	1.00
Canyon	35	Somewhat limited Depth to bedrock Seepage	0.74 0.05	Very limited Thin layer Piping	1.00 1.00	Very limited Deep to water	1.00
RtD2:							
Rosebud	60	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Very limited Piping Thin layer Seepage	1.00 0.85 0.08	Very limited Deep to water	1.00
Canyon	40	Somewhat limited Depth to bedrock Seepage	0.74 0.05	Very limited Thin layer Piping	1.00 1.00	Very limited Deep to water	1.00
SaC:							
Sarben	97	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.19	Very limited Deep to water	1.00
SaD:							
Sarben	97	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.19	Very limited Deep to water	1.00
SbB:							
Satanta	97	Somewhat limited Seepage	0.70	Very limited Piping Seepage	1.00 0.08	Very limited Deep to water	1.00

WATER MANAGEMENT--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer-fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SbC:							
Satanta	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
				Seepage	0.08		
Sc:							
Lodgepole	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Ponding	1.00	Deep to water	1.00
				Depth to saturated zone	1.00		
				Piping	0.08		
TaB:							
Tassel	62	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.74	Thin layer	1.00	Deep to water	1.00
		Seepage	0.05	Seepage	0.08		
Duda	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.96	Deep to water	1.00
		Depth to bedrock	0.11	Thin layer	0.85		
TaF:							
Tassel	62	Somewhat limited		Very limited		Very limited	
		Depth to bedrock	0.74	Thin layer	1.00	Deep to water	1.00
		Slope	0.12	Seepage	0.08		
		Seepage	0.05				
Duda	35	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.96	Deep to water	1.00
		Slope	0.12	Thin layer	0.85		
		Depth to bedrock	0.11				
UsC2:							
Ulysses	97	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
UsD2:							
Ulysses	100	Somewhat limited		Very limited		Very limited	
		Seepage	0.70	Piping	1.00	Deep to water	1.00
VaF:							
Valent	97	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Deep to water	1.00
		Slope	0.01				
VaG:							
Valent	65	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Deep to water	1.00
		Slope	0.04				
Valent	35	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Deep to water	1.00
		Slope	0.85				
VcB:							
Valent	97	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Deep to water	1.00
VcD:							
Valent	97	Very limited		Very limited		Very limited	
		Seepage	1.00	Seepage	1.00	Deep to water	1.00
VeB:							
Vetal	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Seepage	0.09	Deep to water	1.00
W:							
Water	100	Not rated		Not rated		Not rated	
Wa:							
Wann	97	Very limited		Somewhat limited		Very limited	
		Seepage	1.00	Depth to saturated zone	0.84	Cutbanks cave	1.00
				Seepage	0.07	Deep to water	0.07
				Piping	0.02		
WoB:							
Woodly	97	Very limited		Somewhat limited		Very limited	

WATER MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer-fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Seepage	1.00	Seepage	0.08	Deep to water	1.00
WpB:							
Woodly----------	97	Very limited Seepage	1.00	Somewhat limited Seepage	0.09	Very limited Deep to water	1.00

SANITARY FACILITIES
Chase County, Nebraska

Sanitary Facilities

The following tables show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A trench sanitary landfill is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

SANITARY FACILITIES
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In an area sanitary landfill, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

SANITARY FACILITIES--Continued
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(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:					
Alliance	97	Somewhat limited		Somewhat limited	
		Depth to bedrock	0.78	Seepage	0.50
		Restricted permeability	0.50	Depth to soft bedrock	0.42
AED:					
Arents, Earthen Dam-	100	Not rated		Not rated	
Af:					
Altvan	97	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Restricted permeability	0.50		
AfB:					
Altvan	97	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Restricted permeability	0.50	Slope	0.00
AfC:					
Altvan	97	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
		Restricted permeability	0.50	Slope	0.67
AsB:					
Ascalon	97	Not limited		Very limited	
				Seepage	1.00
				Slope	0.00
AsC:					
Ascalon	97	Not limited		Very limited	
				Seepage	1.00
				Slope	0.67
BeB:					
Blanche	97	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	0.00
Bg:					
Bridget	100	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
BgB:					
Bridget	100	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
BuC:					
Bushman	100	Not limited		Very limited	
				Seepage	1.00
				Slope	0.09
Cb:					
Caruso	97	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.68	Seepage	0.32
ChD:					
Sulco	97	Somewhat limited		Very limited	
		Restricted permeability	0.50	Slope	1.00
		Slope	0.00	Seepage	0.50
ChF:					
Sulco	100	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
ChG:					
Sulco	100	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
CrB:					
Creighton	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00

SANITARY FACILITIES--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
CrC:					
Creighton	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Slope	0.67
				Seepage	0.50
CrD:					
Creighton	100	Somewhat limited		Very limited	
		Restricted permeability	0.50	Slope	1.00
		Slope	0.04	Seepage	0.50
DbB:					
Dailey	97	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.00
DuC:					
Duda	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.67
Tassel	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	0.67
Fu:					
Fluvaquents	100	Very limited		Very limited	
		Flooding	1.00	Ponding	1.00
		Ponding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Filtering capacity	1.00	Seepage	1.00
Gb:					
Gannett, OVERWASH	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
Gf:					
Gibbon	95	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Restricted permeability	0.50	Seepage	1.00
Gh:					
Goshen	97	Very limited		Somewhat limited	
		Restricted permeability	1.00	Seepage	0.50
		Flooding	0.40	Flooding	0.40
HaB:					
Haxtun	97	Somewhat limited		Very limited	
		Restricted permeability	0.50	Seepage	1.00
				Slope	0.00
HdB:					
Haxtun	97	Somewhat limited		Very limited	
		Restricted permeability	0.50	Seepage	1.00
				Slope	0.00
INT:					
Aquolls	100	Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00
JaB:					
Jayem	97	Not limited		Very limited	
				Seepage	1.00
				Slope	0.00
JaC:					
Jayem	97	Not limited		Very limited	
				Seepage	1.00
				Slope	0.67
JcB:					
Jayem	97	Not limited		Very limited	
				Seepage	1.00
				Slope	0.00

SANITARY FACILITIES--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
JcC:					
Jayem	100	Not limited		Very limited	
				Seepage	1.00
				Slope	0.67
KeB:					
Keith	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
KeC2:					
Keith	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Slope	0.67
				Seepage	0.50
Ku:					
Kuma	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
KuB:					
Kuma	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
KuC:					
Kuma	100	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Slope	0.67
				Seepage	0.50
LaB:					
Laird	97	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.00
M-W:					
Miscellaneous Water-	100	Not rated		Not rated	
Ma:					
Mace	97	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Restricted permeability	0.50	Seepage	0.50
MaB:					
Mace	100	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
Mc:					
Mace	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Restricted permeability	0.50	Seepage	0.50
Alliance	35	Somewhat limited		Somewhat limited	
		Depth to bedrock	0.78	Seepage	0.50
		Restricted permeability	0.50	Depth to soft bedrock	0.42
McB:					
Mace	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
Alliance	35	Somewhat limited		Somewhat limited	
		Depth to bedrock	0.78	Seepage	0.50
		Restricted permeability	0.50	Depth to soft bedrock	0.42
				Slope	0.00
Mm:					
Mccash	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
Mo:					
Mccook	100	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
		Flooding	0.40	Flooding	0.40

SANITARY FACILITIES--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Mp:					
Mccook	100	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Restricted permeability	0.50	Seepage	0.50
MtB:					
Mccook	100	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
OaF:					
Otero	70	Somewhat limited		Very limited	
		Slope	0.84	Seepage	1.00
				Slope	1.00
Canyon	30	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.84	Slope	1.00
				Seepage	0.50
OaG:					
Sulco	60	Very limited		Very limited	
		Slope	1.00	Slope	1.00
		Restricted permeability	0.50	Seepage	0.50
Canyon	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.50
Rs:					
Rosebud	97	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	0.50
RsB:					
Rosebud	97	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	0.50
				Slope	0.00
Rt:					
Rosebud	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Restricted permeability	0.50	Seepage	0.50
Canyon	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	0.50
RtB:					
Rosebud	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
Canyon	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	0.50
				Slope	0.00
RtC:					
Rosebud	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Restricted permeability	0.50	Slope	0.67
				Seepage	0.50
Canyon	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Slope	0.67
				Seepage	0.50
RtD2:					
Rosebud	60	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00

SANITARY FACILITIES--Continued
Chase County, Nebraska

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Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
		Restricted permeability	0.50	Slope	1.00
		Slope	0.04	Seepage	0.50
Canyon	40	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.04	Slope	1.00
				Seepage	0.50
SaC:					
Sarben	97	Not limited		Very limited	
				Seepage	1.00
				Slope	0.67
SaD:					
Sarben	97	Somewhat limited		Very limited	
		Slope	0.00	Seepage	1.00
				Slope	1.00
SbB:					
Satanta	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Seepage	0.50
				Slope	0.00
SbC:					
Satanta	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Slope	0.67
				Seepage	0.50
Sc:					
Lodgepole	100	Very limited		Very limited	
		Restricted permeability	1.00	Ponding	1.00
		Ponding	1.00	Seepage	0.50
		Depth to saturated zone	1.00		
TaB:					
Tassel	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	0.00
Duda	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.00
TaF:					
Tassel	62	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Seepage	1.00
				Slope	1.00
Duda	35	Very limited		Very limited	
		Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
UsC2:					
Ulysses	97	Somewhat limited		Somewhat limited	
		Restricted permeability	0.50	Slope	0.67
				Seepage	0.50
UsD2:					
Ulysses	100	Somewhat limited		Very limited	
		Restricted permeability	0.50	Slope	1.00
		Slope	0.00	Seepage	0.50
VaF:					
Valent	97	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	0.84	Seepage	1.00
VaG:					
Valent	65	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00
		Slope	1.00	Seepage	1.00
Valent	35	Very limited		Very limited	
		Filtering capacity	1.00	Slope	1.00

SANITARY FACILITIES--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
		Slope	1.00	Seepage	1.00
VcB:					
Valent	97	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.00
VcD:					
Valent	97	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.91
VeB:					
Vetal	97	Not limited		Very limited	
				Seepage	1.00
				Slope	0.00
W:					
Water	100	Not rated		Not rated	
Wa:					
Wann	97	Very limited		Very limited	
		Flooding	1.00	Flooding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
				Depth to saturated zone	1.00
WoB:					
Woodly	97	Somewhat limited		Very limited	
		Restricted permeability	0.50	Seepage	1.00
				Slope	0.00
WpB:					
Woodly	97	Somewhat limited		Very limited	
		Restricted permeability	0.50	Seepage	1.00
				Slope	0.00

SANITARY FACILITIES--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:							
Alliance	97	Very limited Depth to bedrock	1.00	Not limited		Somewhat limited Depth to bedrock	0.42
AED:							
Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Af:							
Altvan	97	Very limited Too Sandy	1.00	Not limited		Very limited Too Sandy Seepage	1.00 1.00
AfB:							
Altvan	97	Very limited Too Sandy	1.00	Not limited		Very limited Too Sandy Seepage	1.00 1.00
AfC:							
Altvan	97	Very limited Too Sandy	1.00	Not limited		Very limited Too Sandy Seepage	1.00 1.00
AsB:							
Ascalon	97	Not limited		Not limited		Somewhat limited Seepage	0.50
AsC:							
Ascalon	97	Very limited Too Sandy	1.00	Not limited		Somewhat limited Seepage Too Sandy	0.51 0.50
BeB:							
Blanche	97	Very limited Depth to bedrock	1.00	Not limited		Very limited Depth to bedrock Seepage	1.00 0.50
Bg:							
Bridget	100	Not limited		Not limited		Not limited	
BgB:							
Bridget	100	Not limited		Not limited		Not limited	
BuC:							
Bushman	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
Cb:							
Caruso	97	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone	0.47
ChD:							
Sulco	97	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00
ChF:							
Sulco	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
ChG:							
Sulco	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
CrB:							
Creighton	97	Not limited		Not limited		Not limited	
CrC:							
Creighton	97	Not limited		Not limited		Not limited	
CrD:							
Creighton	100	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04
DbB:							
Dailey	97	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Seepage Too Sandy	1.00 0.50
DuC:							
Duda	62	Very limited Depth to bedrock Too Sandy	1.00 1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Too Sandy Seepage	1.00 1.00 1.00
Tassel	35	Very limited Depth to bedrock	1.00	Not limited		Very limited Depth to bedrock Seepage	1.00 0.50
Fu:							
Fluvaquents	100	Very limited Flooding Depth to saturated zone Ponding Seepage	1.00 1.00 1.00 1.00	Very limited Flooding Ponding Depth to saturated zone Seepage	1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00 1.00
Gb:							
Gannett, OVERWASH---	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00

SANITARY FACILITIES--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Seepage	1.00	Seepage	1.00	Seepage	0.50
Gf:							
Gibbon	95	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Depth to saturated zone	0.68
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Seepage	0.21
		Seepage	1.00	Seepage	1.00		
Gh:							
Goshen	97	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Flooding	0.40		
HaB:							
Haxtun	97	Not limited		Very limited		Not limited	
				Seepage	1.00		
HdB:							
Haxtun	97	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.21
INT:							
Aquolls	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Seepage	1.00				
JaB:							
Jayem	97	Not limited		Not limited		Somewhat limited	
						Seepage	0.50
JaC:							
Jayem	97	Not limited		Not limited		Somewhat limited	
						Seepage	0.50
JcB:							
Jayem	97	Not limited		Not limited		Somewhat limited	
						Seepage	0.50
JcC:							
Jayem	100	Not limited		Not limited		Somewhat limited	
						Seepage	0.50
KeB:							
Keith	97	Not limited		Not limited		Not limited	
KeC2:							
Keith	97	Not limited		Not limited		Not limited	
Ku:							
Kuma	97	Not limited		Not limited		Not limited	
KuB:							
Kuma	97	Not limited		Not limited		Not limited	
KuC:							
Kuma	100	Not limited		Not limited		Not limited	
LaB:							
Laird	97	Not limited		Not limited		Very limited	
						Seepage	1.00
M-W:							
Miscellaneous Water-	100	Not rated		Not rated		Not rated	
Ma:							
Mace	97	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
MaB:							
Mace	100	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
Mc:							
Mace	62	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
Alliance	35	Very limited		Not limited		Somewhat limited	
		Depth to bedrock	1.00			Depth to bedrock	0.42
McB:							
Mace	62	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
Alliance	35	Very limited		Not limited		Somewhat limited	
		Depth to bedrock	1.00			Depth to bedrock	0.42
Mm:							
Mccash	97	Not limited		Not limited		Not limited	
Mo:							
Mccook	100	Somewhat limited		Somewhat limited		Not limited	
		Flooding	0.40	Flooding	0.40		
Mp:							
Mccook	100	Very limited		Very limited		Not limited	
		Flooding	1.00	Flooding	1.00		
MtB:							
Mccook	100	Very limited		Very limited		Not limited	
		Flooding	1.00	Flooding	1.00		
OaF:							
Otero	70	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.84	Slope	0.84	Slope	0.84
						Seepage	0.50

SANITARY FACILITIES--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Canyon	30	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Slope	0.84	Depth to bedrock	1.00
		Slope	0.84			Slope	0.84
OaG:							
Sulco	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
Canyon	40	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Depth to bedrock	1.00
		Depth to bedrock	1.00			Slope	1.00
Rs:							
Rosebud	97	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
RsB:							
Rosebud	97	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
Rt:							
Rosebud	62	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
Canyon	35	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
RtB:							
Rosebud	62	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
Canyon	35	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
RtC:							
Rosebud	62	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
Canyon	35	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
RtD2:							
Rosebud	60	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Slope	0.04	Depth to bedrock	1.00
		Slope	0.04			Slope	0.04
Canyon	40	Very limited		Somewhat limited		Very limited	
		Depth to bedrock	1.00	Slope	0.04	Depth to bedrock	1.00
		Slope	0.04			Slope	0.04
SaC:							
Sarben	97	Very limited		Not limited		Somewhat limited	
		Too Sandy	1.00			Seepage	0.50
SaD:							
Sarben	97	Very limited		Somewhat limited		Somewhat limited	
		Too Sandy	1.00	Slope	0.00	Seepage	0.50
		Slope	0.00			Slope	0.00
SbB:							
Satanta	97	Not limited		Not limited		Not limited	
SbC:							
Satanta	97	Not limited		Not limited		Not limited	
Sc:							
Lodgepole	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Ponding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
TaB:							
Tassel	62	Very limited		Not limited		Very limited	
		Depth to bedrock	1.00			Depth to bedrock	1.00
						Seepage	0.50
Duda	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too Sandy	1.00	Seepage	1.00	Too Sandy	1.00
						Seepage	1.00
TaF:							
Tassel	62	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Slope	1.00	Depth to bedrock	1.00
		Slope	1.00			Slope	1.00
						Seepage	0.50
Duda	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too Sandy	1.00	Slope	1.00	Too Sandy	1.00
		Slope	1.00	Seepage	1.00	Slope	1.00
						Seepage	1.00
UsC2:							
Ulysses	97	Not limited		Not limited		Not limited	
UsD2:							
Ulysses	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Slope	0.00	Slope	0.00	Slope	0.00
VaF:							
Valent	97	Very limited		Somewhat limited		Very limited	
		Too Sandy	1.00	Slope	0.84	Too Sandy	1.00
		Slope	0.84			Seepage	1.00
						Slope	0.84

SANITARY FACILITIES--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
VaG:							
Valent	65	Very limited		Very limited		Very limited	
		Too Sandy	1.00	Slope	1.00	Too Sandy	1.00
		Slope	1.00			Seepage	1.00
						Slope	1.00
Valent	35	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Slope	1.00
		Too Sandy	1.00			Too Sandy	1.00
						Seepage	1.00
VcB:							
Valent	97	Very limited		Not limited		Very limited	
		Too Sandy	1.00			Too Sandy	1.00
						Seepage	1.00
VcD:							
Valent	97	Very limited		Not limited		Very limited	
		Too Sandy	1.00			Too Sandy	1.00
						Seepage	1.00
VeB:							
Vetal	97	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.50
W:							
Water	100	Not rated		Not rated		Not rated	
Wa:							
Wann	97	Very limited		Very limited		Somewhat limited	
		Flooding	1.00	Flooding	1.00	Seepage	0.50
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	0.44
		Seepage	1.00	Seepage	1.00		
WoB:							
Woodly	97	Very limited		Very limited		Somewhat limited	
		Seepage	1.00	Seepage	1.00	Seepage	0.50
WpB:							
Woodly	97	Very limited		Very limited		Not limited	
		Seepage	1.00	Seepage	1.00		

AGRICULTURAL WASTE MANAGEMENT
Chase County, Nebraska

The nature of the soil is also important in the application of organic wastes and wastewater to land as fertilizers and irrigation; it is also important when the soil is used as a medium for treatment and disposal of these wastes. Favorable soil properties are required to prevent environmental damage.

The use of organic wastes and wastewater as production resources will result in energy conservation, prevent the waste of these important resources, and prevent problems associated with their disposal. Where disposal is the goal, and a maximum amount is disposed in a minimum area to hold costs to a minimum, risk of environmental damage is the principal constraint. Where the reuse goal is pursued, and a minimum amount is applied to a maximum area to obtain the greatest benefit, environmental damage is unlikely.

Interpretations developed for waste management may include ratings for (1) manure and food processing wastes; (2) municipal sewage sludge; (3) irrigation use of wastewater; or (4) treatment of wastewater by the slow rate process, overland flow process, or rapid infiltration process. If available, these should be located in this subsection.

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

The Ag-Waste tables show the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of these tables, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, phosphorus, heavy metals, and salts are not added in excessive amounts.

The ratings in the tables are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation)and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater, rapid infiltration of wastewater, and slow rate treatment of wastewater).

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are generally favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Application of manure and food-processing waste not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density.The wind erodibility group, the soil erodibility factor K, and slope are consideredin estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

AGRICULTURAL WASTE MANAGEMENT
Chase County, Nebraska

The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding.

The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

See the National Soil Handbook, September 1992, Part 620, for criteria used in rating soils for sanitary facilities and waste management.

AGRICULTURAL WASTE MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ac:							
Alliance	97	Not limited		Not limited		Not limited	
AED:							
Arents, Earthen Dam-	100	Not rated		Not rated		Not rated	
Af:							
Altvan	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.00	Droughty	0.00	Droughty	0.00
AfB:							
Altvan	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.00	Droughty	0.00	Droughty	0.00
AfC:							
Altvan	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Restricted permeability	0.41	Restricted permeability	0.31	Too steep for surface application	0.31
		Droughty	0.00	Droughty	0.00	Restricted permeability	0.31
						Droughty	0.00
AsB:							
Ascalon	97	Very limited		Very limited		Very limited	
		Low adsorption	1.00	Low adsorption	1.00	Low adsorption	1.00
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
AsC:							
Ascalon	97	Very limited		Very limited		Very limited	
		Low adsorption	1.00	Low adsorption	1.00	Low adsorption	1.00
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for surface application	0.31
						Filtering capacity	0.00
BeB:							
Blanche	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.16	Depth to bedrock	0.16	Depth to bedrock	0.16
		Droughty	0.03	Droughty	0.03	Droughty	0.03
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
Bg:							
Bridget	100	Not limited		Not limited		Not limited	
BgB:							
Bridget	100	Not limited		Not limited		Not limited	
BuC:							
Bushman	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
						Too steep for surface application	0.00
Cb:							
Caruso	97	Somewhat limited		Very limited		Very limited	
		Depth to saturated zone	0.86	Flooding	1.00	Salinity	1.00
		Flooding	0.60	Salinity	1.00	Depth to saturated zone	0.86
		Salinity	0.50	Depth to saturated zone	0.86	Flooding	0.60
ChD:							
Sulco	97	Somewhat limited		Somewhat limited		Very limited	
		Sodium content	0.08	Sodium content	0.08	Too steep for surface application	1.00
		Slope	0.00	Slope	0.00	Too steep for sprinkler application	0.10
						Sodium content	0.08

AGRICULTURAL WASTE MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
ChF:							
Sulco	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Sodium content	0.08	Sodium content	0.08	Too steep for sprinkler application	1.00
						Sodium content	0.08
ChG:							
Sulco	100	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Sodium content	0.08	Sodium content	0.08	Too steep for sprinkler application	1.00
						Sodium content	0.08
CrB:							
Creighton	97	Not limited		Not limited		Not limited	
CrC:							
Creighton	97	Not limited		Not limited		Somewhat limited	
						Too steep for surface application	0.31
CrD:							
Creighton	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.04	Slope	0.04	Too steep for surface application	1.00
						Too steep for sprinkler application	0.22
DbB:							
Dailey	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Depth to dense layer	1.00	Droughty	0.67	Droughty	0.67
		Droughty	0.67				
		Leaching limitation	0.45				
DuC:							
Duda	62	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Droughty	1.00
		Depth to bedrock	0.65	Depth to bedrock	0.65	Depth to bedrock	0.65
		Leaching limitation	0.45	Filtering capacity	0.00	Too steep for surface application	0.31
		Filtering capacity	0.00			Filtering capacity	0.00
Tassel	35	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Droughty	1.00	Droughty	1.00
		Depth to bedrock	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40			Too steep for surface application	0.31
Fu:							
Fluvaquents	100	Very limited		Very limited		Very limited	
		Ponding	1.00	Droughty	1.00	Droughty	1.00
		Depth to saturated zone	1.00	Ponding	1.00	Ponding	1.00
		Flooding	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Droughty	1.00	Flooding	1.00	Flooding	1.00
		Low adsorption	0.77			Low adsorption	0.77
Gb:							
Gannett, OVERWASH	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Runoff limitation	0.40	Filtering capacity	0.00	Filtering capacity	0.00
		Filtering capacity	0.00				

AGRICULTURAL WASTE MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Gf:							
Gibbon	95	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.95	Flooding	1.00	Depth to saturated zone	0.95
		Flooding	0.60	Depth to saturated zone	0.95	Flooding	0.60
Gh:							
Goshen	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.41	Flooding	0.40	Restricted permeability	0.31
				Restricted permeability	0.31		
HaB:							
Haxtun	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
HdB:							
Haxtun	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
INT:							
Aquolls	100	Very limited		Very limited		Very limited	
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Low adsorption	1.00	Low adsorption	1.00	Low adsorption	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
JaB:							
Jayem	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
JaC:							
Jayem	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for surface application	0.31
						Filtering capacity	0.00
JcB:							
Jayem	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
JcC:							
Jayem	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for surface application	0.31
						Filtering capacity	0.00
KeB:							
Keith	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
KeC2:							
Keith	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.41	Restricted permeability	0.31	Too steep for surface application	0.31
						Restricted permeability	0.31
Ku:							
Kuma	97	Not limited		Not limited		Not limited	
KuB:							
Kuma	97	Not limited		Not limited		Not limited	
KuC:							
Kuma	100	Not limited		Not limited		Somewhat limited	
						Too steep for surface application	0.31
LaB:							
Laird	97	Very limited		Very limited		Very limited	
		Salinity	1.00	Salinity	1.00	Salinity	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Sodium content	0.82	Sodium content	0.82	Sodium content	0.82
M-W:							
Miscellaneous Water-	100	Not rated		Not rated		Not rated	

AGRICULTURAL WASTE MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ma:							
Mace	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.00	Droughty	0.00	Droughty	0.00
MaB:							
Mace	100	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.65	Depth to bedrock	0.65	Depth to bedrock	0.65
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.04	Droughty	0.04	Droughty	0.04
Mc:							
Mace	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
Alliance	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
McB:							
Mace	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
Alliance	35	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
Mm:							
Mccash	97	Not limited		Not limited		Not limited	
Mo:							
Mccook	100	Not limited		Somewhat limited		Not limited	
				Flooding	0.40		
Mp:							
Mccook	100	Somewhat limited		Very limited		Somewhat limited	
		Flooding	0.60	Flooding	1.00	Flooding	0.60
MtB:							
Mccook	100	Very limited		Very limited		Very limited	
		Flooding	1.00	Flooding	1.00	Flooding	1.00
OaF:							
Otero	70	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.84	Slope	0.84	Too steep for surface application	1.00
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for sprinkler application	0.89
						Filtering capacity	0.00
Canyon	30	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.84	Slope	0.84	Too steep for surface application	1.00
		Runoff limitation	0.40			Too steep for sprinkler application	0.89
OaG:							
Sulco	60	Very limited		Very limited		Very limited	
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Sodium content	0.08	Sodium content	0.08	Too steep for sprinkler application	1.00
						Sodium content	0.08
Canyon	40	Very limited		Very limited		Very limited	
		Slope	1.00	Droughty	1.00	Droughty	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Droughty	1.00	Slope	1.00	Too steep for surface application	1.00
		Runoff limitation	0.40			Too steep for sprinkler application	1.00

AGRICULTURAL WASTE MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Rs:							
Rosebud	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.23	Droughty	0.23	Droughty	0.23
RsB:							
Rosebud	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.23	Droughty	0.23	Droughty	0.23
Rt:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.23	Droughty	0.23	Droughty	0.23
Canyon	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40				
RtB:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
		Droughty	0.23	Droughty	0.23	Droughty	0.23
Canyon	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40				
RtC:							
Rosebud	62	Somewhat limited		Somewhat limited		Somewhat limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Restricted permeability	0.41	Restricted permeability	0.31	Too steep for surface application	0.31
		Droughty	0.23	Droughty	0.23	Restricted permeability	0.31
						Droughty	0.23
Canyon	35	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40			Too steep for surface application	0.31
RtD2:							
Rosebud	60	Somewhat limited		Somewhat limited		Very limited	
		Depth to bedrock	0.42	Depth to bedrock	0.42	Too steep for surface application	1.00
		Restricted permeability	0.41	Restricted permeability	0.31	Depth to bedrock	0.42
		Droughty	0.23	Droughty	0.23	Restricted permeability	0.31
		Slope	0.04	Slope	0.04	Droughty	0.23
						Too steep for sprinkler application	0.22
Canyon	40	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40	Slope	0.04	Too steep for surface application	1.00
		Slope	0.04			Too steep for sprinkler application	0.22
SaC:							
Sarben	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for surface application	0.31
						Filtering capacity	0.00
SaD:							
Sarben	97	Somewhat limited		Somewhat limited		Very limited	

AGRICULTURAL WASTE MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for surface application	1.00
		Slope	0.00	Slope	0.00	Too steep for sprinkler application	0.10
						Filtering capacity	0.00
SbB:							
Satanta	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.41	Restricted permeability	0.31	Restricted permeability	0.31
SbC:							
Satanta	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Restricted permeability	0.41	Restricted permeability	0.31	Too steep for surface application	0.31
						Restricted permeability	0.31
Sc:							
Lodgepole	100	Very limited		Very limited		Very limited	
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Ponding	1.00	Ponding	1.00	Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Runoff limitation	0.40				
TaB:							
Tassel	62	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Runoff limitation	0.40				
Duda	35	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Droughty	1.00
		Leaching limitation	0.45	Depth to bedrock	0.42	Depth to bedrock	0.42
		Depth to bedrock	0.42				
TaF:							
Tassel	62	Very limited		Very limited		Very limited	
		Depth to bedrock	1.00	Droughty	1.00	Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Runoff limitation	0.40			Filtering capacity	1.00
Duda	35	Very limited		Very limited		Very limited	
		Droughty	1.00	Droughty	1.00	Too steep for surface application	1.00
		Slope	1.00	Slope	1.00	Droughty	1.00
		Leaching limitation	0.45	Depth to bedrock	0.42	Too steep for sprinkler application	1.00
		Depth to bedrock	0.42			Depth to bedrock	0.42
UsC2:							
Ulysses	97	Not limited		Not limited		Somewhat limited	
						Too steep for surface application	0.31
UsD2:							
Ulysses	100	Somewhat limited		Somewhat limited		Very limited	
		Slope	0.00	Slope	0.00	Too steep for surface application	1.00
						Too steep for sprinkler application	0.10
VaF:							
Valent	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00

AGRICULTURAL WASTE MANAGEMENT--Continued
Chase County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Droughty	1.00	Droughty	1.00	Too steep for surface application	1.00
		Slope	0.84	Slope	0.84	Droughty	1.00
		Leaching limitation	0.45			Too steep for sprinkler application	0.89
VaG:							
Valent	65	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Droughty	1.00	Droughty	1.00	Too steep for surface application	1.00
		Slope	1.00	Slope	1.00	Droughty	1.00
		Leaching limitation	0.45			Too steep for sprinkler application	1.00
Valent	35	Very limited		Very limited		Very limited	
		Slope	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Filtering capacity	1.00	Slope	1.00	Too steep for surface application	1.00
		Droughty	1.00	Droughty	1.00	Too steep for sprinkler application	1.00
		Leaching limitation	0.45			Droughty	1.00
VcB:							
Valent	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Droughty	1.00	Droughty	1.00	Droughty	1.00
		Leaching limitation	0.45				
VcD:							
Valent	97	Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Droughty	1.00	Droughty	1.00	Droughty	1.00
		Leaching limitation	0.45			Too steep for surface application	0.66
						Too steep for sprinkler application	0.00
VeB:							
Vetal	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
W:							
Water	100	Not rated		Not rated		Not rated	
Wa:							
Wann	97	Somewhat limited		Very limited		Somewhat limited	
		Depth to saturated zone	0.84	Flooding	1.00	Depth to saturated zone	0.84
		Flooding	0.60	Depth to saturated zone	0.84	Flooding	0.60
		Sodium content	0.08	Sodium content	0.08	Sodium content	0.08
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
WoB:							
Woodly	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
WpB:							
Woodly	97	Somewhat limited		Somewhat limited		Somewhat limited	
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Chase County, Nebraska

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed. The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (USDA, 1999) and "Keys to Soil Taxonomy"' (USDA, 1998) and in the "Soil Survey Manual" (USDA, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 1996).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units in the Hydric Soil Interpretations table meet the definition of hydric soils and, in addition, have at east one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 1996).

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

These map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Chase County, Nebraska

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Ac:							
ALLIANCE SILT LOAM, 0 TO 1 PERCENT SLOPES	ALLIANCE	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
AED:							
ARENTS, EARTHEN DAM	ARENTS, EARTHEN DAM	Unranked	---	---	---	---	---
Af:							
ALTVAN LOAM, 0 TO 1 PERCENT SLOPES	ALTVAN	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
AfB:							
ALTVAN LOAM, 1 TO 3 PERCENT SLOPES	ALTVAN	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
AfC:							
ALTVAN LOAM, 3 TO 6 PERCENT SLOPES	ALTVAN	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
AsB:							
ASCALON FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	ASCALON	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
AsC:							
ASCALON FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	ASCALON	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
BeB:							
BLANCHE VERY FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	BLANCHE	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
Bg:							
BRIDGET SILT LOAM, 0 TO 1 PERCENT SLOPES	BRIDGET	No	stream terrace	---	---	---	---
BgB:							
BRIDGET SILT LOAM, 1 TO 3 PERCENT SLOPES	BRIDGET	No	stream terrace	---	---	---	---
BuC:							
BUSHMAN VERY FINE SANDY LOAM, 1 TO 4 PERCENT SLOPES	BUSHMAN	No	plain	---	---	---	---
Cb:							
CARUSO LOAM, 0 TO 2 PERCENT SLOPES	CARUSO	No	flood plain	---	---	---	---
	GANNETT	Yes	flood plain	2B3,3	YES	NO	YES
ChD:							
COLBY SILT LOAM, 6 TO 9 PERCENT SLOPES	SULCO	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
ChF:							
COLBY SILT LOAM, 9 TO 30 PERCENT SLOPES	SULCO	No	hillslope	---	---	---	---
ChG:							
COLBY SILT LOAM, 30 TO 60 PERCENT SLOPES	SULCO	No	canyon, hillslope	---	---	---	---
CrB:							
CREIGHTON VERY FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	CREIGHTON	No	stream terrace	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
CrC:							
CREIGHTON VERY FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	CREIGHTON	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
CrD:							
CREIGHTON VERY FINE SANDY LOAM, 6 TO 11 PERCENT SLOPES	CREIGHTON	No	hillslope	---	---	---	---
DbB:							
DAILEY LOAMY SAND, 0 TO 3 PERCENT SLOPES	DAILEY	No	interdune	---	---	---	---
	TRYON	Yes	swale	2B3	YES	NO	NO
DuC:							
DUDA-TASSEL LOAMY SANDS, 3 TO 6 PERCENT SLOPES	DUDA	No	hummock, interfluve	---	---	---	---
	TASSEL	No	hillslope, interfluve	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Chase County, Nebraska

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Fu:							
FLUVAQUENTS, SILTY	FLUVAQUENTS	Yes	flood plain	2B3,3	YES	NO	YES
Gb:							
GANNETT SILT LOAM, OVERWASH, 0 TO 2 PERCENT SLOPES	GANNETT	Yes	flood plain	2B3,3	YES	NO	YES
Gf:							
GIBBON SILT LOAM, 0 TO 2 PERCENT SLOPES	GIBBON	No	flood plain	---	---	---	---
	GANNETT	Yes	flood plain	3,2B3	YES	NO	YES
	FLUVAQUENTS	Yes	flood plain	3,2B3	YES	NO	YES
Gh:							
GOSHEN SILT LOAM, 0 TO 1 PERCENT SLOPES	GOSHEN	No	swale	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
HaB:							
HAXTUN LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	HAXTUN	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
HdB:							
HAXTUN FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	HAXTUN	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
INT:							
AQUOLLS	AQUOLLS	Yes	depression	3,2B3	YES	NO	YES
JaB:							
JAYEM LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	JAYEM	No	interdune	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
JaC:							
JAYEM LOAMY FINE SAND, 3 TO 6 PERCENT SLOPES	JAYEM	No	hillslope, interdune	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
JcB:							
JAYEM FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	JAYEM	No	interdune	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
JcC:							
JAYEM FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	JAYEM	No	hillslope, interdune	---	---	---	---
KeB:							
KEITH SILT LOAM, 1 TO 3 PERCENT SLOPES	KEITH	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
KeC2:							
KEITH SILT LOAM, 3 TO 6 PERCENT SLOPES, ERODED	KEITH	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
Ku:							
KUMA SILT LOAM, 0 TO 1 PERCENT SLOPES	KUMA	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
KuB:							
KUMA SILT LOAM, 1 TO 3 PERCENT SLOPES	KUMA	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
KuC:							
KUMA SILT LOAM, 3 TO 6 PERCENT SLOPES	KUMA	No	plain	---	---	---	---
LaB:							
LAIRD FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	LAIRD	No	interdune, swale	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
LD:							
SANITARY LANDFILL	SANITARY LANDFILL	---	---	---	---	---	---
M-W:							
MISCELLANEOUS WATER, SEWAGE LAGOONS	MISCELLANEOUS WATER	---	---	---	---	---	---
Ma:							
MACE SILT LOAM, 0 TO 1 PERCENT SLOPES	MACE	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
MaB:							
MACE SILT LOAM, 1 TO 3 PERCENT SLOPES	MACE	No	plain	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Chase County, Nebraska

All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Mc:							
MACE-ALLIANCE SILT LOAMS, 0 TO 1 PERCENT SLOPES	MACE	No	plain	---	---	---	---
	ALLIANCE	No	interfluve	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
McB:							
MACE-ALLIANCE SILT LOAMS, 1 TO 3 PERCENT SLOPES	MACE	No	plain	---	---	---	---
	ALLIANCE	No	interfluve	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
Mm:							
MCCASH VERY FINE SANDY LOAM, 0 TO 1 PERCENT SLOPES	MCCASH	No	swale	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
Mo:							
MCCOOK SILT LOAM, 0 TO 1 PERCENT SLOPES	MCCOOK	No	flood plain	---	---	---	---
Mp:							
MCCOOK SILT LOAM, OCCASIONALLY FLOODED, 0 TO 2 PERCENT SLOPES	MCCOOK	No	flood plain	---	---	---	---
MtB:							
MCCOOK SILT LOAM, CHANNELED, 0 TO 3 PERCENT SLOPES	MCCOOK	No	flood plain	---	---	---	---
OaF:							
OTERO-CANYON LOAMS, 6 TO 20 PERCENT SLOPES	OTERO	No	hillslope	---	---	---	---
	CANYON	No	hillslope	---	---	---	---
OaG:							
OTERO-CANYON LOAMS, 20 TO 45 PERCENT SLOPES	SULCO	No	canyon, hillslope	---	---	---	---
	CANYON	No	canyon, hillslope	---	---	---	---
Rs:							
ROSEBUD LOAM, 0 TO 1 PERCENT SLOPES	ROSEBUD	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
RsB:							
ROSEBUD LOAM, 1 TO 3 PERCENT SLOPES	ROSEBUD	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
Rt:							
ROSEBUD-CANYON LOAMS, 0 TO 1 PERCENT SLOPES	ROSEBUD	No	plain	---	---	---	---
	CANYON	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
RtB:							
ROSEBUD-CANYON LOAMS, 0 TO 3 PERCENT SLOPES	ROSEBUD	No	plain	---	---	---	---
	CANYON	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
RtC:							
ROSEBUD-CANYON LOAMS, 3 TO 6 PERCENT SLOPES	ROSEBUD	No	hillslope	---	---	---	---
	CANYON	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
RtD2:							
ROSEBUD-CANYON LOAMS, 6 TO 11 PERCENT SLOPES, ERODED	ROSEBUD	No	hillslope	---	---	---	---
	CANYON	No	hillslope	---	---	---	---
SaC:							
SARBEN LOAMY VERY FINE SAND, 3 TO 6 PERCENT SLOPES	SARBEN	No	hillslope	---	---	---	---
	TRYON	Yes	swale	2B3	YES	NO	NO
SaD:							
SARBEN LOAMY VERY FINE SAND, 6 TO 9 PERCENT SLOPES	SARBEN	No	hillslope	---	---	---	---
	TRYON	Yes	swale	2B3	YES	NO	NO
SbB:							
SATANTA VERY FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	SATANTA	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Chase County, Nebraska

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
SbC:							
SATANTA VERY FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	SATANTA	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
Sc:							
SCOTT SILT LOAM, 0 TO 1 PERCENT SLOPES	LODGEPOLE	Yes	playa	2A	YES	NO	NO
TaB:							
TASSEL-DUDA LOAMY SANDS, 0 TO 3 PERCENT SLOPES	TASSEL	No	ridge	---	---	---	---
	DUDA	No	interfluve	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
TaF:							
TASSEL-DUDA LOAMY SANDS, 3 TO 30 PERCENT SLOPES	TASSEL	No	hillslope	---	---	---	---
	DUDA	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
UsC2:							
ULYSSES SILT LOAM, 3 TO 6 PERCENT SLOPES, ERODED	ULYSSES	No	hillslope	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
UsD2:							
ULYSSES SILT LOAM, 6 TO 9 PERCENT SLOPES, ERODED	ULYSSES	No	hillslope	---	---	---	---
VaF:							
VALENT SAND, ROLLING	VALENT	No	dune	---	---	---	---
	TRYON	Yes	swale	2B3	YES	NO	NO
VaG:							
VALENT SAND, ROLLING AND HILLY	VALENT	No	dune	---	---	---	---
	VALENT	No	dune	---	---	---	---
VcB:							
VALENT LOAMY SAND, 0 TO 3 PERCENT SLOPES	VALENT	No	hummock	---	---	---	---
	TRYON	Yes	swale	2B3	YES	NO	NO
VcD:							
VALENT LOAMY SAND, 3 TO 9 PERCENT SLOPES	VALENT	No	dune	---	---	---	---
	TRYON	Yes	swale	2B3	YES	NO	NO
VeB:							
VETAL FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	VETAL	No	interdune	---	---	---	---
	TRYON	Yes	swale	2B3	YES	NO	NO
W:							
WATER	WATER	Unranked	---	---	---	---	---
Wa:							
WANN FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	WANN	No	flood plain	---	---	---	---
	GANNETT	Yes	flood plain	2B3,3	YES	NO	YES
WoB:							
WOODLY LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	WOODLY	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO
WpB:							
WOODLY FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	WOODLY	No	plain	---	---	---	---
	LODGEPOLE	Yes	playa	2A	YES	NO	NO

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Chase County, Nebraska

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria

FOOTNOTE: There may be small areas of included soils or miscellaneous areas that are significant to use and management of the soil; yet are too small to delineate on the soil map at the map's original scale. These may be designated as spot symbols and are defined in the published Soil Survey Report or the USDA-NRCS Technical Guide, Part II.
Areas mapped as water or any map unit that contains one of the following conventional symbols is considered a hydric soil map unit: marshes or swamps; wet spots; depressions; streams, lakes and ponds.

1. All Histosols except Folists, or

2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:

   a. Somewhat poorly drained with a water table equal to 0.0 foot (ft) from the surface during the growing season, or

   b. poorly drained or very poorly drained and have either:
      (1) water table equal to 0.0 ft during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in),

      or for other soils

      (2) water table at less than or equal to 0.5 ft from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or

      (3) water table at less than or equal to 1.0 ft from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or

3. Soils that are frequently ponded for long duration or very long duration during the growing season, or

4. Soils that are frequently flooded for long duration or very long duration during the growing season.

HIGHLY ERODIBLE LANDS REPORT

Survey Area- CHASE COUNTY, NEBRASKA

Map Symbol	Soil Mapunit Name	HEL Classifications C=60 R=100 wnd	wat	mu
Ac	ALLIANCE SILT LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
Af	ALTVAN LOAM, 0 TO 1 PERCENT SLOPES	1	3	1
AfB	ALTVAN LOAM, 1 TO 3 PERCENT SLOPES	1	3	1
AfC	ALTVAN LOAM, 3 TO 6 PERCENT SLOPES	1	2	1
AsB	ASCALON FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	1	3	1
AsC	ASCALON FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	1	3	1
BeB	BLANCHE VERY FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	1	3	1
Bg	BRIDGET SILT LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
BgB	BRIDGET SILT LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
BuC	BUSHMAN VERY FINE SANDY LOAM, 1 TO 4 PERCENT SLOPES	1	3	1
Cb	CARUSO LOAM, 0 TO 2 PERCENT SLOPES	1	3	1
ChD	COLBY SILT LOAM, 6 TO 9 PERCENT SLOPES	1	2	1
ChF	COLBY SILT LOAM, 9 TO 30 PERCENT SLOPES	1	1	1
ChG	COLBY SILT LOAM, 30 TO 60 PERCENT SLOPES	1	1	1
CrB	CREIGHTON VERY FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	1	3	1
CrC	CREIGHTON VERY FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	1	2	1
CrD	CREIGHTON VERY FINE SANDY LOAM, 6 TO 11 PERCENT SLOPES	1	2	1
DbB	DAILEY LOAMY SAND, 0 TO 3 PERCENT SLOPES	1	3	1
DuC	DUDA-TASSEL LOAMY SANDS, 3 TO 6 PERCENT SLOPES	1	3	1
Fu	FLUVAQUENTS, SILTY	3	3	3
Gb	GANNETT SILT LOAM, OVERWASH, 0 TO 2 PERCENT SLOPES	3	3	3
Gf	GIBBON SILT LOAM, 0 TO 2 PERCENT SLOPES	1	3	1
Gh	GOSHEN SILT LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
HaB	HAXTUN LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
HdB	HAXTUN FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	1	3	1
JaB	JAYEM LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
JaC	JAYEM LOAMY FINE SAND, 3 TO 6 PERCENT SLOPES	1	3	1
JcB	JAYEM FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	1	3	1
JcC	JAYEM FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	1	3	1
KeB	KEITH SILT LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
KeC2	KEITH SILT LOAM, 3 TO 6 PERCENT SLOPES, ERODED	3	2	2
Ku	KUMA SILT LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
KuB	KUMA SILT LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
KuC	KUMA SILT LOAM, 3 TO 6 PERCENT SLOPES	3	2	2
LaB	LAIRD FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	1	3	1
Ma	MACE SILT LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
MaB	MACE SILT LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
Mc	MACE-ALLIANCE SILT LOAMS, 0 TO 1 PERCENT SLOPES	3	3	3
McB	MACE-ALLIANCE SILT LOAMS, 1 TO 3 PERCENT SLOPES	3	3	3
Mm	MCCASH VERY FINE SANDY LOAM, 0 TO 1 PERCENT SLOPES	1	3	1
Mo	MCCOOK SILT LOAM, 0 TO 1 PERCENT SLOPES	1	3	1
Mp	MCCOOK SILT LOAM, OCCASIONALLY FLOODED, 0 TO 2 PERCENT SLOPES	1	3	1
MtB	MCCOOK SILT LOAM, CHANNELED, 0 TO 3 PERCENT SLOPES	1	3	1
OaF	OTERO-CANYON LOAMS, 6 TO 20 PERCENT SLOPES	1	2	1
OaG	OTERO-CANYON LOAMS, 20 TO 45 PERCENT SLOPES	1	1	1
Rs	ROSEBUD LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
RsB	ROSEBUD LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
Rt	ROSEBUD-CANYON LOAMS, 0 TO 1 PERCENT SLOPES	2	3	2
RtB	ROSEBUD-CANYON LOAMS, 0 TO 3 PERCENT SLOPES	2	3	2
RtC	ROSEBUD-CANYON LOAMS, 3 TO 6 PERCENT SLOPES	2	2	2
RtD2	ROSEBUD-CANYON LOAMS, 6 TO 11 PERCENT SLOPES, ERODED	2	2	2
SaC	SARBEN LOAMY VERY FINE SAND, 3 TO 6 PERCENT SLOPES	1	3	1
SaD	SARBEN LOAMY VERY FINE SAND, 6 TO 9 PERCENT SLOPES	1	2	1

SbB	SATANTA VERY FINE SANDY LOAM, 1 TO 3 PERCENT SLOPES	1	3	1
SbC	SATANTA VERY FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	1	2	1
Sc	SCOTT SILT LOAM, 0 TO 1 PERCENT SLOPES	1	3	1
TaB	TASSEL-DUDA LOAMY SANDS, 0 TO 3 PERCENT SLOPES	1	3	1
TaF	TASSEL-DUDA LOAMY SANDS, 3 TO 30 PERCENT SLOPES	1	2	1
UsC2	ULYSSES SILT LOAM, 3 TO 6 PERCENT SLOPES, ERODED	3	3	3
UsD2	ULYSSES SILT LOAM, 6 TO 9 PERCENT SLOPES, ERODED	3	2	2
VaF	VALENT SAND, ROLLING	1	2	1
VaG	VALENT SAND, ROLLING AND HILLY	1	2	1
VcB	VALENT LOAMY SAND, 0 TO 3 PERCENT SLOPES	1	3	1
VcD	VALENT LOAMY SAND, 3 TO 9 PERCENT SLOPES	1	3	1
VeB	VETAL FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	1	3	1
Wa	WANN FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	1	3	1
WoB	WOODLY LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
WpB	WOODLY FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	1	3	1